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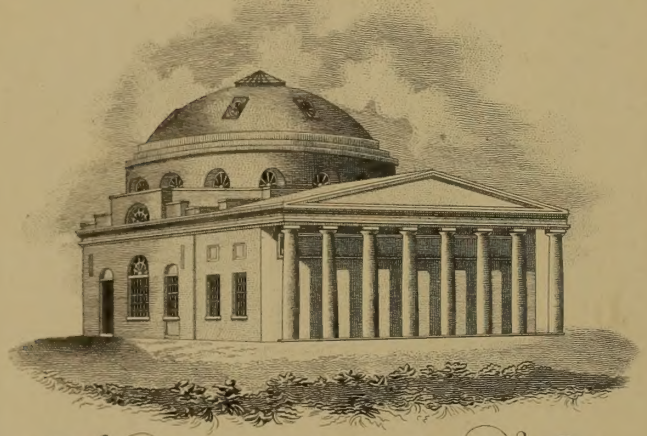

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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UNIVERSITY OF MARYLAND

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1867 (d)

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Bromwell, John E.	Rheumatism [1]
Gardner, Frank B.	Diseases and Treatment of the Eye
Warfield, Claudius	Post and Propter Hoc
McSherry, William S.	Typhoid Fever
Getzendanner, John W.	Inflammation
Kendall, William J.	Insanity
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Le Fevre, Hirman W.	Scarlatina
Brodie, Walter	Pleurisy
Van Lear, Ausbert G. L.	Acute Pneumonia
Powell, Junius L.	Syphilis
Myers, H. K.	Diagnosis

[1] Stained and faded.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title
Petters, W. G. [2]	Digestion
Cockey, Charles H.	Acute Laryngitis
Wells, R. Constant	Diphtheria
Theobald, Samuel	The Propagation and Extension of Disease

[2] According to Cordell and Matriculation list: Petters. Title page seems to say Pettus.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1821-1851; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

UNIVERSITY OF MARYLAND

THESES

1867

Bateman, J. J. M. H.	The Gastric Juice and Stomach Digestion	18p
Alexander, Lawrence	Anaesthesia	25p.
Bromwell, J. E.	Rheumatism	21p.
Gardner, F. B.	Diseases and Treatment of the Eye	42p.
Warfield, Claudius	Post and Propter Hoc	34p.
McSherry, Wm. S.	Typhoid Fever	41p.
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Le Fevre, H. W.	Scarlatina	18p.
Brodie, Walter	Pleurisy	21p.
Van Lear, A. G. L.	Acute Pneumonia	27p.
Powell, J. L.	Syphilis	23p.
Myers, H. K.	Diagnosis	22p.
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Cockey, C. H.	Acute Laryngitis	13p.
Wells, R. C.	Diphtheria	22p.
Theobald, Samuel	The Propogation and Extension of Disease	23p.

AN

Inaugural Dissertation

ON

The Gastric Juice & Stomach Digestion

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

J. A. W. H. Bateman

of

Maryland

13

Session of 1867

IMb
18947

For the subject of our thesis we have chosen the gastric juice and stomach digestion; only one part of the great digestive process, which comprises under its head, the changes which the food undergoes in the mouth stomach and intestines before ready for assimilation. Were we to treat of all these processes our essay would be much more elaborate than we desire it. First we will take a cursory glance at the anatomy of the stomach the most dilatable portion of the whole alimentary canal. It is a conoidal sac situated in the left hypochon

triac and epigastric regions, the walls of the stomach consist of four distinct coats, The serous which completely covers the stomach except at the curvatures, The muscular composed of circular and longitudinal fibres, The cellular connects the muscular and mucous, The mucous is a continuation of that of the oesophagus; it is soft and thick of a light pink color The stomach has also two orifices Cardiac which is a continuation of the oesophagus, and pyloric which is continuous with the small intestine, The mucous coat is distinguished by its great vascularity and the ab-

ndant glandular apparatus with which it is provided, also with the secretion of a fluid called the gastric juice the most active agent in digestion. The length of the stomach is thirteen inches, its capacity about five pints. It was once supposed by physiologists that the liquefaction of food was simply caused by its coming in contact with the walls of the stomach. These erroneous ideas were first set aside by Reaumur, Spallanzani who showed by various methods that it must be owing to a digestive fluid secreted by the mucous membrane which penetrates the food and reduces

it to a fluid form. They regarded this process as a simple chemical solution and considered the gastric juice as a universal solvent for all alimentary substances. The first experiments decisive in their character were those performed by Dr Beaumont of the U.S.A. upon the person of Alexis St. Martin a Canadian boatman, who had a permanent gastric fistula, the result of an accidental gun shot wound. Dr Beaumont experimented upon Alexis at various intervals from the year 1825 to 32. According to Dr Dalton he established the following facts as the result of

his experiments, First the active agent in digestion an acid fluid secreted by the walls of the stomach. Secondly that this fluid is poured out from the glandular walls of the organ only during digestion & under the stimulus of food; and finally it will exert its solvent action upon the food, outside of the body as well as in the stomach if kept at a temperature of 100° Fah. His experiments were of decidedly an interesting character and instructive. Some of the conclusions he arrived at are entirely wrong. He agreed with Reaumur and Spallanzani that the gastric juice was a universal ~~

solvent for all alimentary substances. This conclusion has been proven to be erroneous, for we know now that only the nitrogenized food is digested in the stomach and made ready for absorption. The starchy & oleaginous pass from the stomach undigested into the intestinal canal there to be acted upon by the pancreatic an intestinal juices, and made ready for assimilation. The composition of the gastric juice according to the analyses by Lehman Bidder and Schmidt consists of water as the principal component 975 parts organic matter 16, an acid either lactic or muriatic 1 grand.

a small amount of the chlorides and phosphates. Whether it is lactic or muriatic acid which enters into the composition of the gastric juice has given rise to considerable discussion, and the conclusion arrived at by each of those interested is, that it is lactic acid and by the other half muriatic. This acid is an important agent of the gastric juice and is in fact essential to its physiological properties - for if neutralized by the addition of an alkali it will not exert its solvent action upon food. Another important component is an organic matter

a ferment usually known under the name of pepsin. It has been regarded as a product of the alteration of the mucous of the stomach on insufficient grounds. But whatever may be its source it is always present in the secretion of the stomach and may be regarded as playing an important part in its function. Gastric juice is affected in a remarkable manner by the bile. If four or five drops of the bile be added to an ounce of this secretion it will be precipitated the green coloring matter sinking to the bottom and the filtered fluid is found to have lost its digestive power entirely. Though

still having an acid reaction.
Another singular property is its
power of resisting putrefactive change. It may be preserved for
an indefinite period by keeping it
in a common glass stoppered bot-
tle. "A light deposite generally
takes place at the bottom, a conferva
vegetable growth or mould"; These
growths do not produce any putre-
factive change and the secretion
may be kept for months without los-
ing its acid reaction or digestive
properties. As Dr Beaumont sta-
ted by experiments artificially
made on various aliments with
the gastric juice it was found

that it would exert its action out of the stomach, At a temperature of 100° Fah. it acts most energetically but at extremes acts very feebly ceasing to have any influence at 160° Fah. one extreme and 32° another,
It has been mentioned before that the gastric juice is not a universal solvent for all alimentary substances acting only upon a single class of proximate principles viz, the albuminoid or organic, Fatty matters are simply melted by the warmth of the stomach and starch, hydrated or gelatinized by the combined influence of heat and moisture, The nitrogenized articles of food are at

tacted just as soon as they enter the stomach. When cheese is taken the casein is digested but the oil it contains, as well as the bread the gluten undergoes the same liquefaction but the starch is left unaltered. The time required for the complete reduction of food varies with the quantity taken and also with its degree of cohesion. Outside of the body the process is accelerated by gently agitating the mixture so as to separate the parts disintegrated and bring the gastric juice in contact with fresh particles of digestible food. This change which the food undergoes is not a simple

solution but a catalytic transformation produced in the Albuminoid substances by being brought in contact with its organic ingredient; This matter acts in a manner similar to catalytic bodies or ferments. For its active properties it requires to be dissolved in an acidulated fluid also a moderate degree of warmth is necessary to produce its peculiar properties — by its action the albuminoid principles are converted into albuminose. This article has the general character belonging to organic matters, it is uncrystallizable, contains nitrogen as an ultimate element, is pre

cipitated by alcohol and the
Muriatic acid; but is not affec-
ted by Nitric acid or boiling temp-
erature, freely soluble in water
The peristaltic action of the sto-
mach is an important movement
which takes place in that organ
This action is accomplished
by the alternate contraction and
relaxation of the longitudinal
and circular fibres of its Mus
cular coat. Dr. Beaumont by
watching the movements of the
food through the gastric fistula
was enabled to describe the
churning movement which
takes place there, he says

when the food first passes into the stomach and the secretion commences, the muscular coat which was before quiescent begins to contract actively, the contractions take place in such a manner that the food as it enters the cardiac orifice is first carried to the left in the great pouch of the stomach, then down and in the great curvature into the pylorie portion. The length of time required for the digestion of food varies in different animals - in Carnivora a moderate meal of fresh uncooked food requires from nine to twelve hours for its digestion.

The average duration of time in the human subject is considerably less ranging from one hour to five according to the food taken. The probable reason for this is owing to the complete mastication of food which takes place in man. The total quantity of gastric juice secreted in the stomach of one person is much more than might be supposed. The experiments of Bidder Schmidt place the quantity at fourteen pounds. This would seem almost incredible if we did not recollect that as soon as it has dissolved its quota of food is absorbed by the stomach and of course the circulation

together with the alimentary substances which it holds in solution, This secretion and reabsorption go on simultaneously, and the fluid which the blood loses by one process is incessantly restored to it by the other, Some difficulty has been experienced in understanding how it is that gastric juice which readily digests albuminous substances should not destroy the walls of the stomach which are made up of similar material, This was urged against the conclusions of Reaumur & Spallanzani that the process of digestion was a simple chemical solution It was said to be impossible that

a fluid secreted by the walls of the stomach and having as its function the resolving of Albuminous food into a proper form for absorption without attacking them also. Dr Dalton says the true explanation is this, "As soon as life departs the peculiar actions going on in the lining tissue come to an end, with the stoppage of the Circulation the walls of the stomach are readily attacked by the gastric juice remaining in its cavity and more or less completely liquefied. It was noticed by Dr Beaumont that the secretion was influenced by the nervous condition, In St Martins case

irritation of the temper and other moral causes would diminish the evil in fact at times suppress it altogether. In order therefore that digestion may go on properly in the stomach food must be taken only when the appetite demands it, it should also be thoroughly masticated at the table, and finally the mind and body particularly during the commencement of the process should be performing unusual or disagreeable exertions."

An

Inaugural Dissertation

On

Anaesthesia

Submitted to the Examination

of the

Provost, Regents & Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

Lawrence Alexander

of

Virginia

I have chosen a subject very comprehensive in its bearing. one of deepest interest to the practitioner and of vital concern as regards the comfort and well being of the whole human family. My remarks must be general since I cannot hope to exhaust so complicated, all embracing, and important a subject. and more over I must confess the penalty I inflect upon my tutors by my prosy and at best primitive, and feeble effort — Again

economy of time is of necessity a matter of great importance and I must conclude that brevity is in taste and beg the privilege of exercising it, Twenty one years have elapsed since the process of producing anaesthesia by Ether ("paralysis of Sensability) was discovered in Boston - there were two competitors for the honor and benefits to be derived from this great boon, atherization - Drs Jackson and Morton - the former being

generally accredited with the discovery of the latter with the navigation of it. one Horace Wells from Hartford Conn. made the first fair trial of Surgical anasthesia. This was several years before the discovery of Ether. He acted upon the suggestion of Sir Humphrey Davy that Nitrous Oxide might be used to abolish pain in Surgical operations. The brain of Horace Wells was doubtless the modern source of anaesthesia -

yet his memory is neglected, and save the sad story connected with his termination, his name is well nigh forgotten. His history was truly a sad one - being unable to reap the benefits of his arduous labors and seeing another supersede him and bear off the laurels, his heart was crushed - he could not bear the ills he had, so terminated his life by his own hands, shortly after Ether came the discovery

of Chloroform by Guthrie and also Liebig. though Dr Simpson of Edenburg first introduced it into practice in 1847 Others having served as an entering wedge. Chloroform. Amylene. Nitrous oxide local anaesthesia by Dr Richardsons method. Tetrachloride of carbon Bromide of ethyle and Chloride of olefiant gas. Mixed vapors of Alcohol Chloroform and Ether and the Bichloride of methylene ... some of the measures which have

since. followed in its train
and each one had its respective
advocates – I will not stop to
describe Physical Properties and
modes of Preparation &, but will
proceed to make some general
remarks upon the relative merits
of these several remedial agents
and the manner in which they
are used for the benefit of man-
kind. Ether and Chloroform have
been longest in use and deserved
the most good. I will first give

them my especial notice.

These value has been everywhere recognized where science shines. they have caused by their alleviation of pain many grateful hearts to swell in return to their inventor in nearly every quarter of the Globe.

While we grant to Anaesthetics the need of praise, there are blots upon their escutcheons in that they have in not a very few instances caused death,

Of the two we have under consideration Ether is said to be less dangerous but we are without figures to prove it. The admixture of Alcohol. Ether and Chloroform has been reputed to be safer owing to the stimulation of the Alcohol counteracting the depressing effects of the Chloroform and it may be by modifying both of their effects or by blending their vapours more equably. The quantity of Ether necessary to narcotize fully an

adult is about one ounce. usually about one half of this amount inhaled is absorbed. Of Chloroform about one to three drachms suffices to produce insensibility.

In every instance and form of inhalation the anaesthetic should be fully diluted with air. the narcotism to proceed slowly and the breathing gently and naturally. the patient should have his clothing loose. do as not to impede respiration in any way and his mind

as tranquil as practicable - the
practitioner watching closely the
countenance and breathing as well
as keeping the hand (or two fingers
I should have said) upon the pulse.
The commencement of stertorous
breathing or the weakening or falter-
ing of the pulse should be the
signal to suspend the inhalation
The manner of giving these
inhalations is upon a napkin
or towel folded in the shape of
a cone or a sponge around which

a cone is formed or scrofily on a
golded handkerchief. or as it now
becoming most popular and which
is decidedly advisable as a precau-
tionary measure by inhalers
Whilst they properly dilute and reg-
ulate the amount respired and
I have no doubt deminish the
dangers attendant upon the use
of Anaesthetics. They have their
Sombre list. One author says of
inhalers, that in one fifth of the
cases (fatal) he had recorded, a

mechanical apparatus had been used, a proportion very considerable when we take into account the limited use of them. It suffices then he says, to draw this conclusion, that the immensely promised in their name remains thus far a Utopian dream, It is a Philanthropic dream, But it is a dream only. While I might gather a long list of names high on the Catalogue of the Sages who reject them such as Hippsom, Druitt, Cazeaux and others. I

might counterbalance them with
quite as long a list advocating their
use and advancing unanswerable argu-
ments and reasons in their favor.
One writer urges as an objection
to the use of Chloroform and Ether in
a handkerchief is the ignorance
The other ignorance we have of the
strength of the vapor inhaled in a
given time. If one inhaled a quantity
of air strongly impregnated with the
agent may enter the lungs, at another
a breath may be taken of almost

pure atmospheric air. This cannot be questioned - Again the change of position of the handkerchief may alter the quantity. The difference of rate of evaporation of Chloroform at varying temperatures & manifest the great irregularity of the mode.

I do not in view of the facts think that the element if safely given by inhalers should be discarded

Granting them an advantage, I would repeat the great necessity for utmost caution as regards the tubes. [illegible]

and the apparatus generally indeed in every thing pertaining to the administration. In using inhalers then I repeat you can be sure of the percentage.

I would never insert upon the use of an anaesthetic if the patient objects again I would not allow him any food for some time before giving it. because vomiting might ensue and something might get into the paralyzed larynx. I woul never give them to persons labouring under

any lesion of the respiratory organs,
where there was any tendency to asth-
enia in old age or in infancy. I would
never use them where the patient
ought to have his senses in giving
directions in the operation as in
crushing stone in the bladder, for
example, or a large majority of cases
in which anaesthetics have proved
fatal they should not have been given,
I am of the opinion they should not
be given for minor operations, such
as extracting teeth, superficial tumors

The question then arises. when should they be used, I would say then in such cases as when pain is an element of danger. I have no doubt that many cases of death immediately following severe operations were due to pain alone. Before the use of anaesthetics in amputations of the thigh 44 per cent of cases died while since only 24 per cent have died. Leaving us to argue that pain caused many to succumb.

Anaesthetics have been employed

in Midwifery. Dr Simpson is a great advocate for their use in such cases. Drs Hays of Philadelphia and Dr Lee of England were strenuously opposed to their use - they urge against them that they paralyze the uterus and produce post partum hemorrhage. that they are followed by Anæmia Convulsions &c. their statements have been denied by their advocates. The other arguments against their use are so fully refuted, one is that anæsthesia is nothing

more nor less than drunkenness

and a woman who has been in that

state will lose her self respect.

I do not consider it drunkenness

at all nor is it attended by any

degrading circumstances. another

argument is that the pains of labor

are of divine appointment and should

be borne - that the process of labor

is a natural process and should not

be interfered with. Ho is Colic and

we interfere with it. A learned

Professor of the University of Virginia

in answer to this idea remarks "If the pains of labor are of Divine appointment, and you can frustrate the designs of the Almighty by using anaesthetics then God would never have permitted them to be discovered. Having dwelt at some length on the two anaesthetics which have attained the most general use, I will now say some thing concerning several of the other agents belonging to this class. The Nitrous Oxide gas or Protoxide of Nitrogen though long

known as an anaesthetic. Has only recently come into use and is now chiefly employed by dentists. At present it is considered the safest general anaesthetic known. But the large quantity required for producing insensibility, the difficulty of preparation and its unpleasant properties are objections to its general use. It is being used however in some of the Hospitals as a substitute for Chloroform and Ether for short operations and is selected and highly

nervous patients where the use of
the others are contraindicated,
Capital operations have been conform-
ed with it,
Local anaesthesia, I will give a peeping
notice. It is produced by directing Ether
or Rhigolene spray on the part where
wish to deprive of sensibility. The
principle consists in the passage of
fluid into the state of vapour, absorbing
the latent heat around the part.
Rhigolene is a most volatile liquid
the boiling point of which is over

70° and when evaporated upon the skin soon benumbs the sensibility the same can be done with Ether. by dropping it slowly upon the surface and blowing with the mouth. making it evaporate.

This method is best adapted for the removal of tumors. opening of abscesses and other minor operations. there are instances on record of sloughing occurring after local anaesthesia.

The tetrachloride of Carbon of Sampson says is pleasant to inhale and patients

do not object to its administration. It has been used for the purpose of subduing pain. abolish labor pains and inducing insensibility in surgery. Some who have used it claim for it that it does not produce sickness does not interrupt the Natural efforts & labor. That it effects rapidly cure and that again it is cheaper and a smaller quantity is required. Dr. S. considers for prolonged surgical operations where narcotism is desirable that it is likely to prove injurious

In its earlier stages it is stimulant anodyne, producing no unpleasant effects but its heavy vapor and the consequent difficulty with which it is eliminated from the system makes its employment in large doses questionable Dr Sansom recommends its use with chloroform, so as to modify its action,

Time will not allow me to speak of others I have mentioned,

AN

Inaugural Dissertation

ON

[illegible]

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

[illegible]

Of

[illegible]

Session of [illegible]

One of the most important points therefore in the management of Acute Rheumatism is to watch the supervention of morbid action in the fibrous tissues of the heart. —

A number of different plans have been recommended for the treatment of Rheumatism — & as it has a strong tendency to terminate favorably — it is not surprising that the many remedies, heretofore used in the treatment of this disease, should still have their advocates — for the reason that they have sometimes been invariably accompanied certain forms of this disease — Blood letting has long employed by the most able practitioners of medicine — The continuation of the buffy

[illegible] no longer justifies such treatment – most physicians being agreed that it only acts as a palliation, at the expense of future suffering – increasing as it invariably does the amount of [illegible] – One or two blood letting is still recommended in acute cases – but otherwise it does more harm than good – To remove pain & break the disease in the [illegible] – Colchicum acts on the [illegible] & relieves them – but it also checks all the secretions, except that of the [illegible], [illegible] & the [illegible] [illegible] – Colchicum [illegible] [illegible] all [illegible] [illegible] action – All the preparations should be [illegible] in [illegible] – The [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] or [illegible] [illegible] dose [illegible] may [illegible] in combination, Magnesia, Sulphate [illegible] [illegible] [illegible] – [illegible] [illegible]

are indicated, also is the [illegible] Nitrous Powders, two or three during the day, & Dover's Powders as a mild dose to be given at bed time —

The efficacy of this compound, Ipecacuanha Powder is said to be increased by substituting Nitrate of Potassa for the Sulphate of Potash as in this combination the Opium is so modified that it may be used with [illegible] safety & advantage, all inflammatory diseases [illegible] with high vascular action. The Opium increases the force of circulation — the Ipecac relaxes the [illegible] and vessels & causes a [illegible] diaphoresis — the Potassa is also an important ingredient — but [illegible] [illegible] [illegible] [illegible] [illegible] disease, [illegible] [illegible] [illegible] Opium — Calomel, & Guaiacum, which may be [illegible] in one way or

combination with colchicum is very highly recommended. In the treatment of chronic Rheumatism, [illegible] nitrate of potassa, a mild course of Mercury with proper attention to general health will often materially mitigate if not effectually remove the disease. There are many other remedies which are enjoyed more or less reputation in the treatment of Rheumatism as the Tinctura Guaiaci ammoniata, Cimicifuga [illegible] Camphor &c. In addition to this [illegible] treatment [illegible] recommended, in accordance with the views of Dr. [illegible] [illegible] and McClang Liq. Potassae in connection with [illegible]

medicine I may say produces a decidedly beneficial effect —

The administration of medicines by injection into subcutaneous cellular tissue is a most important addition to our therapeutical resources — the brief space of time which it has taken to establish itself in the profession, is a proof of its value — Morphine administered in this way, our Sul. of Quinine in Acute Rheumatism is an invaluable remedy. —

In Cardiac affections proceeding from Rheumatism — Absolute rest, blisters, & other revulsive measures, to reduce the action of the disease to its minimum [illegible] — when the pain is very [illegible] [illegible] attended with [illegible] inflammation, blistering, [illegible]

which result has been secured
by change of occupation [illegible]
pursuits — by being [illegible] in
summer [illegible] or by other in-
cidental [illegible]
[illegible] are to be anticipated, only
in the young & vigorous [illegible]
the [illegible] that [illegible]
medication is neither [illegible] —
able or expedient [illegible] to
enfeebled constitutions [illegible]
thereby the physician is enabled
to alleviate suffering [illegible]
there is no risk of [illegible]
within the [illegible]
patients that is all which
will be ordinarily expected
of him —

AN

Inaugural Dissertation

ON

Diseases and Refraction of the eye.

SUBMITTED TO THE EXAMINATION

of the

Provost, Regents and Faculty

of

PHYSIC,

of the

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

Doctor of Medicine,

by

[redacted]

of

[redacted]

Session LIX. - LX.

[illegible]

[illegible]

[illegible] loyed almost certainly comprehends [illegible] part of the other – it is impossi[illegible]

[illegible]

[illegible] of the eye

[illegible]

the bows and [illegible]

[illegible], orbicularis [illegible]

cartilages, meibomian glands and con[illegible]

junctiva, [illegible] the globe of the eye

composed of three tunics and three

refracting media – humours.

The tunics are

First – Sclerotic and cornea

Second – Choroid, Iris and ciliary [illegible]

Third – Retina and [illegible]

The humors are -

[illegible]

It is supplied with blood from the ciliary arteries long and short - and the arteria centralis retinae. The nerves are from the opthalmic, the ciliary from the [illegible] and the ciliary - nerves from the opthalmice ganglion. The lids are supplied from the opthalmic facial and transverse facial arteries - and nerves from the fifth and facial.

Wounds of the eyebrows or eyelids -

These are caused by violent blows - from sharp instruments, or by explosions. They are seldom dangerous if [illegible] to the external parts. The [illegible]

bit of the skin of the lid - and this is done
by the following [illegible]
[illegible] along the [illegible]
of the lid to the other [illegible]
parallel about three lines distant and join-
ing at their extremities [illegible]
flap being now raised with forceps it is
dissected clean off the cartilage, and the
edges brought together by sutures.
Ectropion this is eversion of the lids -
It may be caused by thickening of the
conjunctiva, or by long [illegible]
mation - A lotion of Nitrate of Silver [illegible]
[illegible] of the consistence of - two g[illegible]
[illegible] ounce of water - but should [illegible]
[illegible]
[illegible]
[illegible]

[illegible] inflammation must be treated by [illegible]

[illegible]

[illegible] the sac must be opened.

[illegible]

[illegible]

[illegible] to the general health. [illegible]

[illegible]

[illegible]

with the mouth and nostrils closed [illegible]

[illegible]

[illegible]

operation should be done to relieve the obstructed duct. This consists in opening the sac just

[illegible]

[illegible] the utmost care [illegible] notwithstanding

[illegible]

[illegible]

cataract is suspected the pupil may be dilated
with belladonna. If there be capsular form th[illegible]
[illegible] appear behind the pupil an opaque body
[illegible] appearance, if lenticular
[illegible]
[illegible]ion becomes gradually [illegible]
[illegible]ear of irregular outline or multiplied [illegible]
[illegible]
[illegible] posed between them [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

The patient may be sitting [illegible]

[illegible]

[illegible]. Then - having the lids seperated and [illegible]

[illegible] puncture [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] allowed to close and a few moments [illegible]

[illegible]. Then the Surgeon lifts the upper lid

[illegible]

[illegible] downwards, so as to [illegible]

[illegible] introducing a curette [illegible]

[illegible]

[illegible]

[illegible] upper lid the lens [illegible]

the pupil and escape - Lastly, the eye is examined
a minute or two to see that the [illegible]
[illegible] adjusted - and the iris not prolapsed - If it
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]

the room should be kept open [illegible]
[illegible]
[illegible]
may be opened on the [illegible]
[illegible]

steadily till it is carried down out of sight. [illegible]
operation is inferior to that of extra[illegible]
[illegible] difficulties — it is [illegible]
followed by severe inflammation, and the lense
may [illegible] again to its old place and obstruct
vision as before which calls for another operation
or a repetition of the last. The preparation [illegible]
[illegible] and after treatment are [illegible]
[illegible]
[illegible]
This excites very little inflammation but requires
[illegible]
[illegible]
[illegible] straight or curved. — Introduce [illegible]
[illegible]
[illegible]
[illegible]

[illegible]

[illegible] however attempting to cut into the [illegible] [illegible], or displacing [illegible] or trying at once to do [illegible] [illegible] [illegible] [illegible] [illegible]-or if a portion of it press on the iris. In some cases the pain is so severe as to [illegible] [illegible]

Congenital Cataract - This should be [illegible] with [illegible] [illegible] with chloroform, and the [illegible] portions. [illegible]

Myopia, or short sight - This affection [illegible]

[illegible]

[illegible] it motionless. Also by the use of one [illegible]

[illegible] in an in-

[illegible]

[illegible]

[illegible]

[illegible]

it may be removed or at least [illegible]

[illegible] gatives, antacids, tonics, suspension of study

[illegible]

[illegible] must [illegible]

divided in the following [illegible]

[illegible]

[illegible] air - If a child - chloroform [illegible]

[illegible] and it be laid on a [illegible]

[illegible]

[illegible]

[illegible] times this Ophteration follows

internal on account of Paralysis. [illegible]

[illegible] before the division of [illegible]

Cancer — Cancer of the eye may occur within the

[illegible]

[illegible] The [illegible]

[illegible]

[illegible] spread (if not already there) [illegible]

[illegible] prove fatal. The extirpation of it [illegible]

[illegible]

[illegible]

[illegible]

[illegible] - the attachments of the superior and [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] this operation. [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible], red and elevated. [illegible]

[illegible]

[illegible]

[illegible]

whole of the cornea.

[illegible]

[illegible]

[illegible]

[illegible] a room of regular temperature - at the outset a [illegible]ture of calomel and jalap is of use follo[wing] [illegible] black dose. If the system at large is affected it [illegible]

[illegible]

[illegible] grains Dovers-powder at night, with [illegible]

[illegible]

[illegible]

[illegible]

[illegible] of four grains to the ounce of water - a drop to [be] applied to the inflamed surface twice or thr[ice] [a] day - Acetate of zinc and lead are used [illegible] [su]perior to the nitrate - to prevent the [illegible]

[illegible]

[illegible]ular aperture in the center, which hangs between

[illegible]

[illegible]

[illegible]

[illegible] of [illegible]

[illegible]

[illegible] - a change [illegible] natural color of the [illegible]

[illegible]

[illegible] the pupil - adhesion of the uvea to the [illegible]

[illegible] of the crystalline lens, and the presence of [illegible]

[illegible]

[illegible] vision - and pain around [illegible]

[illegible]

[illegible] and Belladonna [illegible]

intolerance of light -

night - and fever -

... may be distinguished from conjunctivitis ...

... purgatives and ...

... general remedies - Blisters to ...

... chows are useful ...

... belladonna ...

... belladonna ...

... after means with ...

... laudanum - or rubbed ...

AN

Inaugural Dissertation

ON

Post and Reflex h. c.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

C. Warfield

Of

Maryland

Session of 12

[illegible]

[illegible]

relative to the effects of medicines

[illegible]

necessary to take into [illegible]

[illegible]

[illegible]

[illegible]

by comparison the [illegible]

[illegible]

[illegible]

[illegible]

[illegible] of restrain[illegible]

becoming too much [illegible]

[illegible] of the [illegible]

seeming to reject the idea of the many vacillations of the system in [illegible] [illegible] the [illegible] which the advancements of [illegible] [illegible] established and maintained. — The Conservative — [illegible] for the sake of [illegible] [illegible] the doctrines of ancient and modern times: directing [illegible] of [illegible] [illegible] [illegible] the [illegible] of facts, amid the perversions of [illegible] and the clashing of opinions. [illegible] [illegible] [illegible] [illegible] [illegible] of [illegible] [illegible] [illegible]; it is [illegible] [illegible] [illegible] knowledge of the [illegible] [illegible] of disease in general; and also to acquire as far as the [illegible] of science and our own observations [illegible] [illegible] [illegible] of [illegible] [illegible] [illegible]. Disease is a deviation or often an

entire cessation in the action of an organ or the functions of several organs; or a general perver-sion of the [illegible] of the whole human structure: as [illegible] expressed by Dr Chambers— that fitful twilight coming between the [illegible] of life [illegible]. [illegible]

[illegible] by precipitating them from the very domi[illegible] [illegible] [illegible] it must behold the patient — as a [illegible] only [illegible] [illegible] also, that diseases assume a great many forms, and very often a special [illegible] of the body, partakes of the [illegible]

character of an affection [illegible] [illegible]

[illegible]

[illegible]

[illegible]

[illegible]ria; the physician would be subjected to the grossest error in treatment and the nosologist [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] impetus that our branch of science [illegible], has been due, in a great measure [illegible]

[illegible] significant signs. Being aware of the [illegible]

the true pathological condition of an internal

[illegible]

[illegible] it seems

very remarkable that such credence should

have been given to the reports of physicians of

[illegible] days [illegible]

important and not the less so then: and who,

[illegible] doubt often treated a very dissimilar complaint

[illegible] of affections, for one and the

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] of them as mad [illegible]

rapid development and enlightening [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible]. It [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] the progression of latter days. I expect, that
[illegible] persons of the present day ~~day~~ who
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] the truths taught by nature
[illegible]self, and wrapt in the dogmas of bigotry
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible]. All inflammations and
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible]gistically as it was termed.

[illegible] especially, for measures the most destructive and
[illegible]nifying in character. Of course, a large
[illegible] portion of their patients recovered; - many no
[illegible] but, [illegible] so they do go.
[illegible] for it is [illegible] of
[illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible]
[illegible] object, it is not my intention to [illegible]
[illegible] [illegible]
[illegible] [illegible]
[illegible] justify me in acting thus unconsti-
[illegible]:

and in the expulsion of matter formed from the
deposition of morbid products. Thus we sometimes
[illegible]
[illegible]
symptoms of [illegible]
inevitable: there ensues a cessation of these
[illegible]
[illegible]. We witness also the production of abdomino-
[illegible] adhesions in abscesses of the liver
[illegible]
[illegible]
[illegible]. In diseases of that great supporter of life
[illegible]
[illegible]. In autopsies of that organ when
[illegible]
[illegible] to its structure. Evidently for the [illegible]

[illegible] the range of [illegible]
[illegible]
[illegible] possibility [illegible]
[illegible] tissue. Thus in every
inflammation or wound, where a loss of tissue
is [illegible]
[illegible]
our previous [illegible]
to suppose the vis medicatrix equally efficient
[illegible]
[illegible]
[illegible]
[illegible]
system endeavors to eliminate or throw off this
morbid deposit from its organism. It appears
reasonable to suppose then, that the same actions

[illegible] processes, which are performed in the solids, [illegible] parts of the [illegible] [illegible] to the [illegible] [illegible] [illegible] known only by microscopic observation. I think [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] of the astute Broussais who considered fevers ([illegible] include most cases of this character)

the sequelæ of antecedent [illegible] than by the infliction of wounds and injuries of any sort; the cause may be removed, and yet [illegible] sufficient [illegible] to [illegible] the life of the patient. [illegible] the phrase — vis medicatrix — to mean solely the power of the system [illegible] through [illegible] of the [illegible] functions [illegible] of [illegible] [illegible] of function. [illegible] of reactive, instinctive action of the body to fill up and repair the [illegible] and ravages inflicted [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible]
[illegible]
[illegible] these mercurial. The result was — she was salivated. And this occurred in different instances [illegible] ces, no doubt, fall under the observation of nearly every practitioner. The influence of the [illegible] is also [illegible] exemplified by the many charms and incantations used by the ancients. [illegible] the character of medicines, that produce a [illegible] supposed to have been exercised by the chanting of songs. [illegible] having been [illegible]

[illegible] then, [illegible] [illegible] [illegible]
[illegible]ous diseases recovering under the administration
of [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible]. The great [illegible] [illegible]
[illegible]ds in these cases was, the keeping of the
[illegible]es well washed and excluded from the air
[illegible] other extraneous [illegible] [illegible]. [illegible]
[illegible] in their cure of diseases: their patients
[illegible] subjected to so [illegible] [illegible] [illegible]
[illegible] to the heathen gods: and many
[illegible] [illegible] at the hands of their attendants;
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] &c. [illegible] [illegible] [illegible]
[illegible]d. But, notwithstanding all this,
[illegible] the [illegible] of [illegible] vis medicatrix, we have
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

At [illegible]

[illegible]

[illegible] on to suspect a concentration of the imagination

upon any particular [illegible]

[illegible]

[illegible] the attention of the patient from a conside-

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] able to practice their many artifices

tricks and machinations upon an inno-

[illegible]

[illegible]

[illegible]

and old cases of [illegible]) to deal [illegible]

dosage of ingredients [illegible] does to a portion of
the enlightened but [illegible] [illegible]
[illegible] [illegible] [illegible]
avoided by [illegible] [illegible] over the [illegible]
ness of [illegible]. [illegible] the [illegible]
[illegible] of [illegible] [illegible] the same [illegible]
ther the patient be reared under the
depressing influences of the poles, or the
debilitating agencies of tropical climes. For
[illegible] [illegible] established, causes the [illegible]
[illegible] would [illegible]
emergencies, to which they are [illegible] in
different countries. Nevertheless, that we
[illegible]
results from the administration of [illegible]
[illegible] of the same medicine [illegible]

-these are the exceptions. Thus it is stated
that a dose, which produces moderate effects
in temperate climes, will often manifest
alarming symptoms in Southern latitudes.
Stimulants are less easily borne in southern
than in northern localities; and the same rule
applies to many of the narcotics. In relation to the
[illegible] of drugs, to act through specific prop-
erties: it is important to consider the diagnosis [illegible]
[illegible] of the poison that gives rise to the disease.
In some districts, [illegible]
[illegible]
annually produce [illegible]; but
in sections where it prevails to the fullest
extent: it is necessary to give doses that
produce [illegible]

dangerous symptoms in the former instance
I think, in a measure, this explains the reason
[illegible] physicians, living at distances [illegible]
from each other, experience [illegible] to
[illegible] medicines in certain specified diseases.
And besides the [illegible], at conflicting
[illegible] statements in our materia medica
as well as [illegible] in ascribing value to any
particular agent [illegible]
[illegible] combination. We may employ agents
with almost any of our drugs, that will com-
bine or at least modify their properties [illegible]
the way [illegible]
opinion, [illegible] be a question of
its [illegible]
[illegible] certain drugs that [illegible] the

symptoms of its action and prevent its [illegible]
[illegible] [illegible] [illegible]
[illegible], which the [illegible] [illegible]
we may administer [illegible] when the disease
is at the crisis of a change and render our [illegible]
liable to interpret nature's [illegible] [illegible]
action. Again we may [illegible] treatment when
the affection is in the progressing stage; and
on account of the impossibility of cutting short
the disease realize unpleasant results and [illegible]
to the remedy injurious effects. We may cite
a case of the continued fevers. Being aware that
they will run a certain course, no matter what treat-
ment we pursue; and understanding also,
the many changes it undergoes [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

in arriving at proper determinations. For treatment ... instituted at the time of ... or when the malady has ... its ... It is ... as ... for ... condition of the ... Whether the absorbing glandular ... of the mucous surfaces ... or performing their functions ... debility of system ... or whether ... they are so disturbed ... of assimilation and endosmosis. ... function ... imperfect ... alteration ... notwithstanding the ... conditions required ... although, they may be subjected to the

[illegible] sending worm impaled; [illegible] the [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] the [illegible] preparation

and the confounding of [illegible] afflictions.

[illegible] of just determinations, the necessity

of [illegible] discriminations and [illegible]

of disease, its various forms, phases and

[illegible] nature is clearly demonstrated [illegible]

[illegible] The [illegible] accounts of [illegible]

[illegible]

[illegible] which [illegible]

[illegible]

[illegible]

[illegible] immersed into the [illegible] [illegible] On [illegible] las a Cale that has been held. Of all the medicines of this description that have risen reign.d and fallen: mercury has perhaps attained the greatest celebrity. It has been the sine qua non of the profession, from the date [illegible] the present time. [illegible] the subject of my [illegible]

…mmen, than by a brief dissertation upon it

and [illegible]

[illegible] the operations, to which [illegible]

administration has been advocated. From the

[illegible]

[illegible] reflect upon the [illegible]

[illegible]

[illegible]

[illegible] ken and deprived of their pearly ornaments

with eyes [illegible]

and the haggard appearance adding [illegible]

[illegible] bitterness of the [illegible]; we will fail to [illegible]

[illegible] at the shame and reproach cast upon our

[illegible]

has not been of great utility. [illegible] it seems [illegible]

[illegible] for it to have been under the surveillance

[illegible]

[illegible]al advantages; and there is no doubt, but that

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]. It is not within my limits to quote the

[illegible]ing in all its bearings. But I must say, that

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] sufficient number to justify

[illegible]

[illegible]

just and propter hoc: the statistics derived from the army, navy and [illegible] families are the most reliable. In the navy, the men [illegible] confined on board of ship, exposed to the same vicissitudes of temperature, breathe the the same atmosphere, partake of the same rations and alike influenced by hygienic agencies for the promotion of health, compared to the [illegible] [illegible] [illegible]. The comparison [illegible] [illegible] by judging the [illegible] [illegible] &c. of the patient, while in health. In the army, the statistics [illegible] greater fallacy. Although the soldiers are exposed to the same [illegible] and other [illegible] incident to army affairs, yet they do not fall so immediately under the supervision of the

Surgeon, and are subjected more to [illegible] injuries. [illegible] as [illegible] form excellent criteria. Although unacquainted with the former history of the patient, his habits, mode of living &c; and liable to be deceived by his accounts: yet as they are under the inspection generally, of the most [illegible] physicians [illegible] in drugs and in the art of making [illegible] allowances: — we may generally place confidence in the accounts found in their reports. There are many [illegible] and accidents incident to human life that might be discussed in connection with this subject; but owing a duty to other studies I shall defer a further consideration of the

for some future time. When having seen and examined for myself, I shall be more competent for doing it justice. Allow me, Gentlemen of the whole Faculty of the University of Maryland; having submitted my few hasty, and very imperfect remarks upon this subject and being about to place them before you for your adoption or rejection, allow me to thank you for the kind and courteous bearing that you have exhibited towards me, during my [illegible] stay with you as a student. I am [illegible] to add; that I shall [illegible] [illegible] memory, [illegible] [illegible], the [illegible] that you have [illegible] [illegible] [illegible] notice. And if, in the coming walks of

future years, changes [illegible] in medical science should (under the convictions of my better judgment) compel me to reverse some of your present opinions: I shall still cherish them, as memorable mementos of your present greatness. With this conclusion, I say farewell, until we shall become more intimately associated in the class-room as student and teacher: where your decisions alone will determine whether I shall [illegible] in the [illegible]

[illegible]

AN

Inaugural Dissertation

ON

Typhoid Fever.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Wm S. McSherry-

of

Maryland.

Session of Sixty-Ninth 1866&67.

Typhoid Fever.

In selecting a subject many have occured to me which would no doubt afford vast scope for hypothetical theorizing and limitless fields of speculation to those fond of indulging in the imaginary and poetical. It not being, however, my particular privilege to possess a faculty for such, I have been constrained to content myself with a subject which professes nothing but practicality — namely the consideration of a disease which is interesting to every practitioner, and with which he may meet in his every-day practice. Typhoid fever is a disease

which may be said to be common to the whole human family, though it has its preference for certain localities, conditions and ages, like most of the other zymotic diseases. The distinctness of character was not generally known until Louis described its pathological anatomy in connection with its most prominent symptoms, enabling us to recognize it in all its forms and modifications. There has been, and still is much difference of opinion concerning the correct name for this disease, and a number of different appellations have been suggested by different authors, some relating to a prominent symptom, others to a particular pathological lesion. Dr. Hope has employed the term "Enteric fever," which only reveals

to us that there is a fever, connected with some intestinal disease, without denoting the peculiar kind of fever. It is probable that such a term as "typh-enteric fever" would be somewhat more expressive, serving at the same time to distinguish it from typhus - a distinct disease - in which there are no intestinal symptoms. But we will spend no more time on the nomenclature of the disease, as the time has passed for treating diseases by name; moreover the study expended upon this subject might be more advantageously directed to its pathology and treatment. Without further delay, therefore, we will pass on to the consideration of the symptoms and course of the malady.

The disease generally makes its appearance
like most of the febrile affections, but in
the majority of cases it comes on more
insidiously. The patient, at first perhaps
has a vague sense of pain throughout
the body, and feels an indisposition for
any active pursuits or labour, complains of
a little lowness and flushes of heat and chilly
sensations. The pulse soon becomes accelerated,
the skin dry, headache increases, and there
is such a feeling of languor, that the patient
finds himself no longer in condition to go
about his ordinary duties, and consequently
takes to bed. There is also, almost always
during the incubative stage more or less
diarrhoea, or else unusual susceptability to
the action of cathartic medicine.

the disease having fairly set in, we find the fever and heat of skin contineous as a general rule, though there may be slight remissions where there is a malarial tendancy. There is at the same time frequently bleeding from the nose, with great restlessness, and dull heavy pain in the back and limbs. These symptoms continue to increase in intensity. The pulse becomes more frequent, though feebler, the tongue thickly furred and dry and the countenance assumes a dusky hue, and a dull obtuse expression, so characteristic of such low forms of fever. Pain, more or less severe, is felt in the abdomen which is increased, or elicited if absent, by pressure, especially in the right iliac region; together with which there will

be some tympanitic distention of the abdomen and gurgling. These last are symptoms very constant, and are of great assistance in diagnosis.

From the seventh to the ninth day of the disease, is found a peculiar eruption, first upon the abdomen, thence extending to the extremities after spreading over the chest, which is known by the name of the rose spot eruption. It consists of small, round, pinkish spots, bearing some resemblance to flea bites. They disappear under pressure, which fact serves to distinguish them from the petechiae of typhus.

The nervous symptoms now become very marked. Stupor or delirium takes the place of the headache, and partial or complete deafness

will supervene upon the buzzing in the ears that previously existed. The conjunctiva of the eyes becomes injected and the tongue when protruded is done so with apparent difficulty, and trembles in the effort.

The disease progressing, graver symptoms occur — symptoms which justly excite alarm and dread in both the practitioner and friends. A more decided typhous character is now assumed by the disease. The temperature rises far above the normal standard, as high often as 104° or 106° F. The pulse becomes more enfeebled and frequent, the tongue parched and cracked, while dark sordes collect upon the teeth and gums, from the inability upon the part of the patient to throw off the particles of dust

which accumulate in his mouth from the surrounding atmosphere. Subsultus tendinum and twitching of the facial muscles are symptoms which will next make their appearance, at the same time the patient will display his extreme weakness by lying upon his back and slipping helplessly down in his bed. The intellect is more or less clouded, or perverted. Imaginary object haunt his seething brain, and he picks at the bed clothes, or into space in the vain attempt to seize them, muttering, at the same time, low unintelligible syllables, and incomplete broken sentences.

The delirium is usually in this passive muttering character, though sometimes it becomes more active or even violent, when

The patient will often rise from his bed, in the frenzy of a moment, only to fall back helpless and exhausted from the exertion. The case proceeding to an unfavourable termination, the pulse becomes still more feeble, & fluttering, and later imperceptible at the wrist; the abdomen still more distended, the extremities bathed in a cold clammy sweat. Hiccough frequently harasses the patient; while the countenance assumes that peculiar pinched appearance called Hippocratic. Coma presently supervenes upon the delirium, and life gradually becomes extinct, though sometimes convulsions may close the scene. If, on the other hand, the disease takes a favourable turn, all the symptoms begin to abate. The tongue, before

dry, furred and cracked, begins gradually to loose its coating, at the same time becoming moist; the delirium disappears, tympanites subsides, and the patient goes into convalescence. In addition to the before mentioned mode of unfavourable termination, there is another which sometimes takes the physician and patient by surprise. Every symptom may seem to be pointing to recovery, when suddenly, without warning, the sufferer is seized with violent pain in the abdomen and all the symptoms of acute peritonitis. Collapse takes place from which the patient seldom or never rallies. There are some other symptoms, which, though not constant, nor peculiar, deserve notice as they often complicate the disease to a greater or less extent. The most frequent are, cough,

bronchial rales and pneumonia, hemorrhage from the bowels or nose — a tendancy to sloughing of the skin, and occasional retention of urine.

The disease is rather uncertain in its duration, death taking place, however, in unfavourable cases, generally about the second or third week; though sometimes not until the sixth.

The period of convalescence is no less uncertain, the length of time required depending upon the circumstances in which the patient may be placed, and upon the severity of the case.

After this brief sketch of the symptoms, it becomes convenient to study the principle pathological lesions found after death, especially such as can explain certain symptoms noticed during life.

In making a post mortem examination upon one dead of this fever, it is not at all uncommon to find almost every organ of the body, to some extent, in a state of inflamation. The most constant and characteristic lesion, however, is the affection of the glands of Peyer. Dr Wood says that this condition "is quite as characteristic of the disease in question, as the peculiar pustular eruption is of small pox. It has in fact come to be regarded almost as a necessary post mortem test of the existence of the disease". These glands are found in a state of congestion, inflamation, or ulceration according to the period of the disease at which the patient may have died; and being most numerous at and about the ileo-cæcal valve, we find generally the

intestine most affected at that point, a fact which explains the tenderness before referred to as existing in that region, so constantly in this disease. In the early stages of the malady the patches of Peyer are found to be slightly thickened and raised above the surrounding mucous membrane. Louis has divided the condition in which these glands are found, into two varieties - the hard and soft. The hard being capable of undergoing resolution, or ulceration, while the soft always ulcerate. The ulceration has generally a tendancy to heal, but sometimes, the process continuing, perforation of the bowel will be the consequence, and as the result of this we have the fatal peritonitis which is sometimes so unexpected. The mesenteric

glands are as frequently diseased as those of the intestinal mucous membrane. They become enlarged, inflamed, and sometimes though rarely they suppurate. The above are the only peculiar derangements of structure met with in this disease, but there are often others formed, either to be some complication, or some remote effect of the disease. Louis says that he has found in one sixth of his cases, either ulceration of the [illegible], or the mucous membrane [illegible] pseudo membranous deposit, and the oesophagus presenting marks of ulceration almost as frequently. Other organs, such as the spleen, liver &c are often found [illegible] but it is probable that this softening is rather due to the general deficiency of

nutrition, and diminished vital cohesion, than to inflamation, to which it has been ascribed by some.

Causes— What particular conditions and influences are required to produce this disease, is by no means certain, though it seems often to be the effect of any circumstances which tend to depress; among the most prominent of which we may mention impure air, especially air loaded with the effluvia from persons crowded together in illventilated hovels. Insufficient food, or food of bad quality, foul water and exposure often predispose to the disease, if not actually cause it. Contagion has been by some put down in the list of causes, but the disease has certainly never

been demonstrated to be contageous, and if it be so, it must be very feebly so. However we must remember that the foul emanations from a patients body, or especially from the excrementa, in an ill ventilated room, are undoubtedly potent agents in the production of the disease in others, if long exposed to their influence. Age influences the disease somewhat. It is comparatively rarely found to attack those over thirty years of age, and seldom indeed those over fifty. Though not often it may attack children before puberty, though it is of so rare occurrence, that as a rule we may consider them exempt before that time. There was a case, interesting in this connection, reported to the Academy of

medical sciences of France, in 1841, in which there was found the alteration of the intestinal glands characteristic of typhoid fever in the body of a fœtus of six months and a half, which died 20 or 30 minutes after birth.

The comparative infrequency of the disease in those over forty years of age, probably owing to the fact that it seldom occurs more than once in the same individual, and likely attacks those predisposed to it before they have attained that age. Dr Wood says, speaking of the causation of typhoid fever, "On the whole the most rational view of the etiology of enteric fever, in the present state of our knowledge, seems to be, that an inherent predisposition to the disease exists in many persons, analogous in some measure, to the tuberculous, the gouty

and the rheumatic predisposition, which is liable to be called into action by various exciting causes, perhaps by almost any cause capable of considerably disturbing the vital functions; but that all persons do not have the predisposition and that it is generally exhausted by one attack of the disease." Typhoid fever is peculiar to no season, though it more frequently occurs in Autumn and Winter, than at any other period of year.

In considering the nature of this affection it was at one time an unsettled point whether the fever and other constitutional symptoms were an effect of the local inflammation in the alimentary canal, or whether this local affection were not rather a symptom

or effect of the general disorder.

The latter opinion is certainly the most rational one, the former merely deserving any notice whatever: for it never has been proved that the bowels affection appears before, or even simultaneously with the general disturbance which ushers in the disease, nor is it likely that the slight inflammation in the early part of the disease, if any exist, can be sufficient to account for the vigour, dullness of intellect, epistaxis, and pains through the limbs, which are so constant in the symptoms of every case. However it is hardly possible to conceive any necessary connection of cause and effect between the inflamation or ulceration existing in the bowels, and the stupor, convolutions, con-

spots &c which are so characteristic at some or other stage of the disorder. We may regard the intestinal lesion, therefore, in the same light as we do the eruptions of small-pox, or other exanthemata, that is as being a necessary effect, consequence, product or symptom of some general constitutional vice, which has been lighted up by some cause or influence from without. What the precise nature of the constitutional vice may be, it is impossible to say; whether it be a perversion of the normal functions or conditions alone, or whether there is circulating in the system a material, specific poison, is not easily determined; but from what we know of the disease at present, we think that the latter is the more plausible and probable, and

most likely to be the case.

Diagnosis — As a general rule it is not difficult to recognize this disease. The symptoms which are the most prominent and which are of greatest assistance in diagnosing typhoid fever are; in the first place, the insidiousness of its attack in most cases, the diarrhœa, which is seldom absent in the beginning, the peculiar dusky hue of the countenance and the epistaxis, together with the tendency to weakness displayed by the patient from the first, which is not so marked in other fevers, with the exception of typhus. The tenderness in the right iliac region, and the tympanites being very constant, can be relied upon also as very important aspirant signs. The dryness of the tongue, the rose-

spots, and the character of the delirium are symptoms which are considerably in diagnosis. We must not expect to find all the above symptoms present at the same time or stage of the disease, but generally a sufficient number of the most prominent will be noticed to render the diagnosis not a very difficult matter.

Remittent fever has sometimes been confounded with typhoid fever, but in most cases the difference is sufficiently marked to obviate any mistake. The decided remissions of the former disease, the peculiar yellow complexion, the bilious vomiting, and the absence of the rose spots will of themselves be sufficient to enable us to distinguish it from the latter.

Sometimes, however, the two may be so apparently blended as to render it impossible to say positively by which it is, but this is rare. It often becomes a nice point in diagnosis to discriminate between typhoid and typhus fever; at first sight they seem to have so many points in common that they have, by some, been considered identical.

The following are the most notable points of difference: In typhus there is constipation, in typhoid diarrhœa; in typhus the attack is comparatively sudden, in typhoid gradual and insidious; in typhus there is rarely absence of epistaxis, which are frequently present in typhoid; in typhus the delirium appears earlier than it does in typhoid, and we find the temperature of the surface, ante-

in the former than in the latter instance. The eruption being different in the two diseases, we may derive valuable information from an examination of the surface. In typhoid we will find the rose spots, small pink dots scattered over the chest and abdomen, disappearing for a time when pressure is exerted upon them; while in typhus will be found dark petechiæ, or ecchymosed blotches, diffused over the whole surface in severe cases; these, unlike the rose spots, refuse to disappear when pressure is applied. The glassy, pink, inflected condition of the eye which accompanies typhus will aid somewhat our differential diagnosis. This peculiar appearance of the eye, we have noticed invariably in all the cases that we have examined in the Hotel

Infirmary, and when once seen it is easily recognized again. I think upon the whole, that taking into consideration the greater frequency of typhoid than typhus, at least in this country, and with a due amount of care, the two diseases need seldom be confounded. In the incipiency of all fevers it is necessary to be always cautious about making a diagnosis, for they all begin pretty much in the manner, and it is seldom possible to say what course a given case may pursue afterwards. Prognosis — In predicting the probable termination of any particular case it is necessary to exercise a degree of caution, for it sometimes happens that even the mildest cases terminate unfavourably, when least expected, by intestinal invagination or by perforation. Dr Wood says, he "once lost a case, which promised, according to all ordinary signs, to eventuate favourably through intestinal invagination". As a general rule

however, typhoid fever, though a very serious disease, is yet not a very fatal one. If the patient be young, previously healthy, and placed under favourable circumstances, as to attention, ventilation, &c. we may entertain in an ordinary case, reasonable hope for recovery. When the pulse is seen to diminish in frequency, at the same time gaining in strength, and particularly if the temperature of the body is noticed gradually to lower, while the tongue throwing off its fur, becomes moist, the patient has every prospect of getting well. If on the other hand the delirium be continuous, excessive subsultus tendinum come on, involuntary discharges from the rectum take place, profound coma supervene, and the pulse fluttering and thready, while a clammy sweat bathes the surface, we may conclude at once that a fatal termination is not far distant.

treatment – With our present knowledge of the disease and its treatment, we can seldom expect to cut it short in its course. Means, however, latterly have met with some degree of success in a few cases reported by different authors. Dr Chambers, who holds that poisons of zymotic fevers enter the system through mucous of the alimentary canal, recommends very highly the employment of an emetic as soon as the patient is suspected to be the victim of such poisons. He says that he has seen this simple remedy considerably ameliorate all the symptoms, and arrest a case of undoubted typhoid fever, in which the eruptions had made their appearance, which has stopped short in its course by an emetic of ipecacuana. Tartar emetic would not be advisable as an emetic in typhoid fever, on account of its tendency to irritate the bowels and increase the diarrhoea. Other

means for abortion, the disease have been [illegible];
such as large doses of quinia, full doses of Opium,
and enclosing the patient in a wet sheet. The first
of these has proved itself utterly inefficient as an abortive;
the second probably little better, while the last
according to Dr. Flint is worthy of a trial.
That gentleman says that he has tried the wet sheet
in five cases only, but that in every case there
was a distinct amelioration of all the symptoms.
[illegible]
[illegible], the mineral acids have been most highly
praised [illegible]
Chambers, Murchison and others, and [illegible]
[illegible]. The [illegible]
only by assisting digestion, [illegible]
[illegible]
[illegible]

as it may, it seems indisputable from all the evidence adduced, that they exert a evident benificial influence over the Dr Chambers, in his excellent work, - of 230 cases of continued fever, which acid treatment. Of these 230, he says, 109 by wine, bark, carbonate of Ammonia

the patient was [illegible], and [illegible]
[illegible] nutriment, a dose of hydrochloric acid was
[illegible]. After showing that [illegible]
[illegible] cases were as similar, generally, as could be,
[illegible]
[illegible] as follows — The number of deaths
that happened among the first series, or those
[illegible] 107,
was 23; while the number of fatal cases
among the 121 treated by hydrochloric acid,
[illegible], only amounted to four: a [illegible]
in favour of the latter made very strikingly
[illegible]. In fact, as I before asserted, from
the weight of authority, and from the clinical
evidences in its favour, we [illegible]
that [illegible]
invaluable, and has been, [illegible]

[illegible] wholesome nourishment and pure air.

From the few cases in which I have seen the acid [illegible] used, in the Balt. Infirmary, I cannot [illegible] which has been placed in it. The hydrochloric acid may be used in doses of from 10 to 15 drops diluted, with the addition of Syrup, every two [illegible]. It has the advantage of being [illegible]

Of course we need not expect to [illegible] or even cure them with the acid alone [illegible]

Dr Wood has recommended very highly the employment of the oil of turpentine, in a particular stage of the disease, where the tongue is dry and the abdominal symptoms are marked, and I am confident that it has a very salutary influence over the intestinal disease. If in the early stage, or in any stage in fact, the headache becomes severe, it is proper to apply cold water or even ice to the scalp, or some evaporating lotion, as cologne water &c. The hair of the head may be removed to facilitate the application of these remedies. Insomnia must be met by opiates; for sleep is of great importance to the patient. Nausea and vomiting, though not often met with in this disease, when they do appear should be combated by appropriate treatment. The diarrhoea if it becomes excessive may be moderated by opiates and astringents.

Tympanites, when it occasions much distress, is often relieved by an enema containing turpentine together with the application of a turpentine stupe to the abdomen. If, unfortunately, peritonitis occur from perforation of the intestine, little will be expected from treatment; the only remedy that will afford the least hope of advantage is opium given pretty freely. Uraemia must be watched for; and if it occur attempts should be made, by [illegible] diaphoresis and other means to eliminate the poison, while [illegible] might be applied over the kidneys to relieve the congestion of these important [illegible] organs, and restore their function if possible.

One great, important point of the treatment of all cases, one upon which I would place [illegible]

is the proper hygienic management of them. The first, and most important point to be attended to of these [illegible] is the supply of a proper amount of pure, fresh air to the patient. In order to accomplish this, free ventilation is absolutely necessary. In private practice, the patient's room should be large and spacious, and fresh air should be permitted to enter and circulate through the apartment, care being taken, however, that a current of air be not directed upon the person of the patient. In hospital practice it has been found that both typhoid and typhus fevers lose most of their fatality, when those attacked are placed in tents or sheds in the open air, and there are many instances on record in which this treatment proved the most valuable.

and successful means of mitigating the violence of the disease, showing that too much attention cannot be paid to this important point of treatment, in private as well as hospital practice. It must always also be the care of the attendants to remove the excrements of the patient from the room as soon as possible, and every thing that could in any way contaminate the air should be excluded from the sick chamber.

The temperature of the apartment should be as equable as possible; sudden changes being especially avoided.

Another highly important point to be attended to in this disease, as in all others, is the support of the patient by appropriate nourishment. Typhoid being a debilitating

disease, it is plainly evident that if we can keep up the patients powers of resistance until the violence of the poison has expended itself, we have accomplished all we would desire - cure. Food being the natural stimulus of the body, it is our bounden duty to let the patient have the benefit of this most neglected remedy, at a time when the system stands most in need of its assistance.

For obvious reasons it is generally necessary to administer the food in a liquid form, always when the case is at all serious. The animal essences, milk, eggs, and farinaceous forms of aliment are the best under the circumstances. These different articles

or, some of them, may be given advisedly, at intervals of from 2 to 4 hours.
As to the amount to be given each time, we should be careful to give no more than the weakened digestive organs of the patient can bear, and not to overload the stomach, for by so doing we add materially to the already existing depression. It is important, in serious cases, to keep up the regular alimentation during the night when the patient is awake, as well as during the day.

Alcoholic stimulants claim considerable attention as potent arrestors of retrograde metamorphosis of tissue, and may be resorted to in order to assist the digestive powers, or when food can

no longer be taken; or one may use them
when great depression or debility comes on,
for their diffusible stimulant effect.
Dr Austin Flint speaking of the use of alcohol
in this disease says; "Commencing with a
moderate quantity, half an ounce of spirit,
or an ounce of wine, the effect on the
circulation, and other symptoms should
be watched. A good effect is shown by
increased force, with perhaps diminished
frequency of the pulse, diminution of delirium
&c." — "Guided by the true indications," he says,
"and the effects, alcoholic stimulants will
not do harm, and will often do much
good in the treatment of typhoid and typhus
fevers. I have repeatedly tried this sus-
pension for a few hours in cases in which

they seemed to be urgently indicated, in order to become fully satisfied of their utility, and have found the pulse become more frequent, with increase of delirium, and other ataxic symptoms, until their use was resumed. While a certain proportion of cases do well without them, I cannot doubt that I have seen cases in which life was saved by their employment."

It must be remembered that there is a much greater tolerance of alcohol in typhoid, and other diseases, than in health; and the quantity which would unduly stimulate the patient when well, seems only to act as a permanent food and support to him when in disease. After convalescence has commenced, and during it, alcohol

should be gradually withdrawn, and solid food should be given the patient as soon as he is able to take it, Some degree of caution must be exercised in the choice of the diet, however, - bearing in mind that there may still exist, in the intestines, ulcerated patches in the process of healing, upon which irritating articles of food might have an injurious effect. Too active exercise might produce perforation at some diseased point of the intestine, and should by no means be permitted -

In addition to good nutritious food, the various tonics, will be of great assistance in bringing about a healthy state of the organism.

The stimulants, with some simple

bitter to stimulate the digestive system, will be found the most effective.

In conclusion, most respected Professors, while hoping that this, I fear, unsuccessful attempt, may meet your favourable consideration, I cannot sufficiently thank you for your kindness towards me during my studies with you; for the valuable information you have imparted to me, and for the untiring efforts you have made to fit me for the noblest of professions, of which, it remains with you to decide, whether I am competent to become a worthy and useful member

Wm S. McSherry.

Feb. 1867.

AN

Inaugural Dissertation

ON

Inflammation.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

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FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

John R. Fendanner

Of

Frederick Maryland

Session of 1866-67.

Inflammation.

Having considered the phenomena of inflammation a very important as well as an interesting subject to lay the foundation of my thesis upon, I embrace the opportunity of making a few brief remarks in reference to it. In the first place, it is always well known both to the surgeon and physician, that it ought to engage a large share of their attention. In the majority of cases the first question that either of them asks himself, after being called to a patient is, have I inflammation to deal with in this case? and it is the constant object of his treatment and care. All parts of the system that are supplied with blood-vessels are subjected to be affected by inflammation, and it also affects different parts of the body in different ways.

It is more easily aggravated by many outward causes, and it is therefore more common than any other special disease, and a great majority of the diseases to which the human system is liable, commence or end with inflammation, or is connected with it during some part of its course. Most of the organic changes of different parts of the body, consider inflammation as their cause or consider it as their effect. Inflammation is very interesting in its morbid character and destructive consequences, but in its healing effects also. It is invariably the case whether of a cut finger or a wound of any part of the body caused by a cutting instrument of any kind, or a broken limb it is the inflammation which follows that concerns our care and attention, and which supplies the proper

remedy of repair. It is through inflammation that parts are made to unite together when their adhesion is intended to preserve the patient, and that foreign and injurious matters are brought safely out of the body. When ulceration occurs in the stomach or intestines it is through inflammation that this affection is cured or provided against. If a hand or an arm mortifies inflammation will take away the dead and diseased part. Be first become acquainted with inflammation by its symptoms as it displays itself externally. The symptoms of inflammation when they show themselves in a visible part of the body are four, pain, redness, heat and swelling; preternatural heat and preternatural redness. These have been considered the

external signs of inflammation from the earliest ages. In the first place, suppose a person should fall into a pile of stone or glass, and gets a fragment of the glass in his hand. Before very long he begins to have pain in that part of the hand in which the injury was inflicted which is soon followed by redness and increased heat and swelling. The skin is affected by becoming of a red colour, and the swelling augments. Around the place of injury the swelling is very firm and hard, and at the same time very tender: at a distance from the injury, the parts are soft and pliant, although there is slight swelling. At the seat of injury a burning pain is experienced by the patient; the affected part is a great deal hotter than it usually is, which is very

evident to a bystander. But if inflammation should extend to a degree beyond this, other symptoms more severe present themselves at a distance from the diseased part. The patient generally at first experiences a sensation of chilliness and feebleness the skin becomes hot and dry. It also has a decided affect upon the pulse, it becomes more frequent fuller and harder than it naturally is the patient complains of being tired, weary, with headache and pains in his limbs, he is unable to exert himself in any way, he has no control of himself, gets confused and restless and gets no sleep, he loses his appetite, his tongue also becomes affected by becoming white, his mouth is parched and he is unusually thirsty and in fact his entire system is deranged. Persons that are labouring

under symptoms like these are said to have inflammatory fever. This however is an indirect sign of inflammation showing itself through the system in general. The pain in inflammation does not act the same way in all cases, but varies a great deal both in degree and in kind. It effects different persons in different forms according to their constitutions. It varies from the slightest uneasiness to the greatest agony of torment. Parts which are perfectly sound, when affected by this form of inflammation have little or no capacity of sensation, such as the tendons, ligaments, bone, and cartilage of the body often become very tender and sensible when affected by inflammation. The organs of sense are also greatly and variously affected by it. The special sensibilities of the mouth and

nose are apt to become affected by inflammation, the eye and ear are often seriously affected by it. There are also great changes in the kinds of pain. At times it is of a dull aching nature as is experienced in toothache, again it is of a pricking smarting sensation like that experienced in the sticking of a needle into the flesh. Sometimes the pain seems to be tensive or stretching and sometimes the pain is scarcely experienced at all. Very often the pain is experienced to be of a throbbing character like that felt in the case of boils and other gatherings. Every beat that the heart makes is felt in the affected part. The cause of the pain in inflammation is owing to the nerves being implicated in the diseased part. The straining or stretching of the vessels and nerves, adds or has a

tendency to increase the pain. For instance in the case of boils which are very common among persons. the pain is most intense or severe a little while before the tumor is opened. because all the vessels and nerves in the affected part are stretched or strained; and as soon as it is opened the distention is relieved and perfect ease and comfort is the consequence. It is likewise the same in earache. In the next place pain is aggravated by pressure. Sometimes it is not felt at all, unless pressure is made intentionally by the physician attending him or accidentally by the movements of the patient himself. On the other hand by aggravating the pain by pressure, it enables us to distinguish pain that is inflammatory from pain that is not inflammatory. For instance pain in the stomach may originate from colic

or spasm, from the intestines being distended by air, and the textures and nerves belonging to them being stretched or strained: this kind of pain is relieved in a great measure by pressure, for you will very often find persons so affected lying upon their bellies across a chair back or barrel, for the purpose of obtaining ease. But if the pain originate from inflammation of the peritoneum it is quite the reverse, the slightest pressure or even the lightest bed clothes causes the greatest agony. The next thing we have to consider is the heat of inflammation. The heat of inflammation in the central parts of the body does not rise higher than the maximum heat of the blood, but the external parts of the body are not so warm as the internal, in their natural condition, and the extremities of the body

are generally not so warm as the trunk, thus we can see that the contrast between inflamed and healthy parts of the body, with regard to heat is greater in the extremities than on the trunk. Thus if we were to apply a mustard plaster or blister to the chest, the heat of the inflamed part caused by the blister would not be much greater than the other neighboring parts; but if a blister be applied to the foot or leg it might cause a difference of five or six degrees Heat is increased by a greater amount of arterial blood. Animal heat seems to be derived from the close connection that takes place between oxygen and the elements of the tissues, their carbon and hydrogen; in the meantime the tissues are undergoing continual changes which in the natural condition of the system are

necessary to health. The heat of inflammation is generally less felt and less complained of by the patient than the pain. The next part that requires our attention is the redness of inflammation, which must also be preternatural in degree, for many parts of the body are more or less red by nature or naturally red, but this depends upon the greater amount of blood which the blood vessels contain in the part. There is generally more blood in those vessels which carry red blood. Those vessels which circulate red blood become distended and enlarged in inflammations. There is much variety in the kind of the redness of inflammation, which depends upon the kind and degree of inflammation and on the nature of the affected part. Sometimes the redness is bright and vivid as though

the part were full of arterial blood, but this usually occurs in the more acute forms, and in the earlier stages of inflammation. Again the redness is dark and livid or purplish, as though the parts were gorged with venous blood. Sometimes the redness is distinguished by spots or patches scattered over the body, and again it is diffused in a general blush covering a large space. The redness often remains for some time after the inflammation has subsided. As long as inflammation exists, redness of some shade generally accompanies it, though the other symptoms may scarcely be observed. The next point that demands our attention is the swelling. This depends no doubt in some degree, upon the distention of the blood vessels; but when

In swelling is attended by this it can be
to a great amount, and when it does original
from this cause it occurs early in the disease.
In a general way the swelling
is caused by the presence of matter poured
out into the openings of the affected part;
this matter is of different kinds at times
from all original from the blood. The swelling
in different cases depends on the intensity
of the inflammation and in part on the
nature of the parts that are affected.
Swelling is liable to occur without any
inflammation. For example, hernia or
dislocations may often occur without any
inflammation of any account. Again inflam-
mation may take place without any swelling
of any kind. For instance the scarlet coal-

of the eye may be inflamed, and yet we may not be able to distinguish any swelling.
It is also necessary for us to become acquainted with the constituent elements of the blood, and of some of the changes it is liable to undergo, in order that we may be able to understand the phenomena of inflammation more minutely. The blood consists of red particles or globules and of a transparent colourless fluid, called liquor sanguinis.
When the blood is allowed to coagulate in any part of the body without any effort to remove the red particles, these become entangled and enclosed as it were among the fibrin as it becomes solid or hard, and from this cause the well known name of clot and serum is derived. In inflammation the blood has a

peculiar appearance after it has been taken from a vein. After it has been drawn a part of the fibrin at the upper surface of the clot is seen to be mixed with the colouring matter and upon the other portion of the coagulum there has often been observed a layer of yellowish and sometimes a bluish-white colour varying from a line or two to two quarters of an inch in thickness. The appearance whitish buffy layer of the clot is termed the buffy coat. Very often the buffy coat is seen to be flat and wide, but sometimes it is contracted. The formation of this coat seems to be encouraged by a great many circumstances which as it has been said have nothing to do with the disease which the patient may be labouring under.

For instance the size of the opening in a vein, or the form in which the blood flows, or the form and size of the vessel in which the blood. In the majority of strongly developed acute inflammations, there is an excess of fibrin and of the colourless corpuscles of the blood. An increase of fibrin in the blood is shown as soon as inflammation commences. In inflammations the buffy coat is very often not present in the blood when it is drawn in the early part of the disease, owing to the fibrin not being sufficiently abundant and it becomes by marked as the severity of the disease and decrease of fibrin diminishes. Inflammation may be divided into acute and chronic. It is said to be acute, when it runs its course rapidly and

is accompanied with general as well as local disturbances. It is said to be chronic, when the local and constitutional symptoms are less violent, and the inflammation runs a longer course. But inflammation can hardly be very violent or of very long duration. When it is so, it has been compared to a raging fire which soon burns itself out. Again, it may be mild in its symptoms and then quickly over. In regard to intensity and duration of inflammation, there are many shades of difference in different cases of it. The softening or softening produced by inflammation, and finally expulsion, may be considered as a natural mode of cure. A cure of this kind is very often accomplished. For instance suppose an abscess was to form in the glands

of the neck, at length bursts and tuberculous matter is discharged; and the abscess heals leaving no diseased process except a scar. The same thing may also take place in the lungs. The next point that should engage our attention is the means to be adopted when we are called upon to see a person labouring under inflammation. In every case of inflammation our first object is to obtain or bring about resolution, and if we fail in doing that, we will try to secure that event of inflammation which will prove most effectual in the case before us. True, gentleman more could be said upon this most important subject, but as I have done to the best of my ability in giving you a brief description of inflammation according to my opinions and believing that what I have said may meet with your approbation. I remain

Your most obedient

John R. [illegible]

An

Inaugural Dissertation

on

Insanity.

Submitted to the Examination

of the

Provost Regents and Faculty of Physic

of the

University of Maryland

for the Degree of

Doctor of Medicine

By

W. P. Kendall of

February 1867. Mississippi.

This Gentlemen, I am aware is a term of very extensive application including all derangements of the intellectual and moral functions, not forming a part of some other recognized disease, nor an ordinary physiological result of the time of life.

The delirium which so frequently accompanies fever and intoxication, the temporary cerebral irregularities from excessive pain or functional disturbance in various parts of the body, and the imbecility of old age, cannot be considered as falling within the definition of the term.

That the definition is imperfect we must acknowledge and perhaps

necessarily so, as our ideas of insanity are somewhat indefinite: but whatever may be the amount of knowledge or ignorance on the part of those who have made insanity their study, it cannot be concealed that the bulk of the profession are far from well informed upon the subject.

I do not propose going into minute detail upon the subject but only giving a memoranda.

The affected organ is the brain sympathetically at first but essentially so if the disease continues.

The nature of the lesion varies according to the character of the existing insanity - for under

this generic term, diseases which have little or no relation to each other except in the disturbance of the intellectual faculties and which are fundimentally different have been classed and grouped together.

Thus idiocy, and imbecility, which result from an imperfection of the brain, congenital or acquised, are not properly insanity diseases and consequently require no medical treatment.

By general insanity, is ment a derangement in a greater or less degree of all the cerebral functions connected with the mind; by partial insanity a derange-

ment of one or a portion only of these functions.

Mania, is that form of general insanity, which is characterised by delirium with excess of action, is produced by an irritation of the outer surface of the brain and its membranes, in a more or less considerable extent: if this irritation or inflamation does not terminate in resolution it gives rise to certain organic changes, which induce dementia or mental alienation a state of the disease, which according to our best authers, is little susceptible of cure.

Dementia- This is that form of general insanity in which the mental functions are enfeebled and is applied to those cases of unsound mind which are characterized by total loss of the faculty of thought or by such an imbecility of intellect that the ideas are extremely incoherent, there being at the same time a total loss of the power of reasoning; however differing in its complete form, from original idiocy only in circumstance that in the latter there never has been intellect and the mind appears to be a blank; while in the former the broken remains of a previous

intellegence are generally discoverable. The passions, the conscience, the will, may not be entirely obliterated, but their exhibitions are generally feeble and merely habitual. An imperfect memory of the past remainss, but present objects and incidents make no impression, or soon forgotten.

Dementia is not always fully formed at once. It in general comes on gradually step by step not being suspected by the patient until finally siezes its victom with all the vengance of insanity. it exists in various degrees and there is every grade between the perfectly sane, or

the maniacal condition of mind and complete imbecility. In some instances the passage of mania or monomania is marked by the occurrence of paralytic symptoms indicative of organic disease in the brain, before the intellect is quite lost, evidence of commencing palsy appear in the hesitating speech, the uncertain movements, and staggering gait of the patient in attempting to walk. With the progressive weakening of the mind the palsy increases, the ideas and the power of expression appear to be nearly lost together.

Along with the organs of speech, the lower extremities usually suffer most, walking becomes very difficult or quite impossible and the patient is finely confined to his bed, unable to move himself without assistance. Involuntary discharges from the bladder and bowels now make their appearance and general sensibility is so much impaired that little or no pain is produced by severely pinching or nicking the limbs. occasionally, partial or general convulsions hasten the progress of the disease. According to Bayles views on the subject death usual-

ty occurs in such cases at a period varying from three or four months to two years from the commencement of the stage of dementia also according to our best authors dissection proves the existence of chronic inflamation of the brain and its membranes.

When dementia occurs as an original affection: it print invariably itself, as a general rule, in failure of the memory. The patient appears to have undergone a remarkable change, he has forgotten things and persons of old acquaintance, or views them in perfectly new lights.

The current of his thoughts verges on delirium in rapidity and excitation. Sometimes these appear in him more force and vivacity of intellect in his paroxysmal state than was observable in his original character. From each of these states he drops suddenly into the other, and has no clear recollection in the one of subjects which had interested him in the other.

This morbid state to which the name of double consciousness is usually given, has a considerable affinity to the intermittent forms of madness, so much so that it is-

mo not unreasonable to suspect their laws of causation may have some common points. In all stages however of this affection, the brain appears capable of being excited by temporary influence to a higher grade of activity. It is somthing very remarkable, that individuals who have long remained in a seeming state of vegetative existence & lived silent apparently attending to nothing, and caring for nothing, eating only what was given them, and wholly inattentive to their person; have suddenly thrown off this lethargy and resumed

their usual mental activity, with or without a complete return to reason.

Dr. Wayt relates the case of a young man, who had been insane for the period of three years and spent a larger portion of that time at the establishment at Bicêtre, had passed into a state of alternate lucid intervals and paroxysms, each of these states successively lasting for some weeks. At the commencement of one of these, he announced to the proprietor of the establishment that he should never have another attack. This patient never relapsed.

I am acquainted with a lady about thirty (30) years of age, the mother of three children, who has been sent to the Asylum at Jackson Miss. three different times for treatment, and after remaining there about twelve months each time, was returned to her home, pronounced cured. This patient has relapsed the fourth time, and is now under treatment at that establishment.

In such cases, The dementia may sometimes be only apparent and the obstinate simulation of it, the result of an insane determination.

Some of our authors on insanity

say, that death in dementia may occur from the suspension of various acute or chronic diseases having no immediate connexion with the brain; or it may apparently depend upon the cerebral affection-life being terminated by an apoplectic seizure, or the slow progress of paralysis.

Monomania, religious, erotic and other manias, are not different diseases, one organ or faculty being chiefly affected, and the rest entire; but the proximate cause may, and often is the same as when all the organs and faculties are affected. Religious dispen-

dency is a mere symptom, also appears because the function of some cerebral part is to manifest religious feelings, and those being sick, the functions necessarily suffer and the feelings are in a greater or less extent are altered. But the same pathological state affecting combativeness and destructiveness would produce furious mania.

Monomania, and melancholy are less easily curable, not from the proximate cause being more serious, but from the faculties and reason succeeding in longer concealing the

existence of aberration; whereas, in Mania, it betrays itself early in spite of the patient. In some cases of Monomania, there is probably neither irritation nor inflamation of any portion of the brain, but only a habit on the part of the invalid of associating incoherent ideas.

A patient may be siezed with monomania, and pass through all the different stages of insanity.

I remember the case of a gentleman about forty five years of age, who came under my own observation immediately after the close of the late war in our country, in consequence

of sustaining great loss of property, which consisted principally of negros, fell into a state of monomania, from this form he passed into mania and finely died of dementia-

Dr. McKentosh has wisely observed "The first important question which naturally suggests itself in the treatment of insanity is what combination of circumstances ought to exist before a medical man is entitled to commit any individual suspected of labouring under it to an asylum, or to any other place, where he is not only deprived of his liberty, but is placed under some degree of restraint. Medical men should take care not only to be themselves satisfied of the necessity of such a serious step, but that they have sufficient proof which cannot

fail to convince a jury that it was most necessary.

If an insane person evince a propensity either to take away his own life or threaten that of another there can be no doubt that confinement is absolutely necessary. If an individual in a state of mental aberration disturb the public peace and is a source of annoyance to any one, a medical man, if consulted, should recommend as a preliminary step the interference of the local authorities.

If a patient act in such a way as to offend public morals, he

being insane or even eccentric. I think also upon the same grounds before stated, analytical should in the first instance be made by the same source for protection.

The second point of importance is, should an insane person be sent to a proper establishment or healed at home. all the best writers on insanity insist upon the separation of the sufferers from their friends, relatives, and from whatever has the effect of keeping up a remembrance of their former feelings and habits, and I think it not actually necessary, is the best step calculated to procure

a speedy recovery, and as the writer goes on to state, more particularly if he be the head of a family, it being the most difficult thing to gain a sufficient degree of authority over a person in the house where he had always been obeyed.

A change of scene is always beneficial, and hence whenever there is any promise of convalescence I think it would be well to recommend travelling. And where the patient is not able to travel permit him to have some cheerful occupation of the mind in gardening, music, and games of chance, and in whatever has a tendency to tranquillise and

extricate the mind, and with-
draw it from its delusions- are
most to be dreaded in the various
forms of mania and monoma-
nia- You should always try
and gain the confidence of your
patient, never under any circum-
stances scold your patient, al-
ways treat him kindly, but at the
same time be positive, give him
to understand that when you tell
him to do anything, it must be done,
and by that means it will enable
you to controll your patient.

The most important physical rem-
edies are moderate bleeding, baths,
purgatives, and the use of nitri-

cial discharges. Dr. Mayo in his article
treates on insanity. States that mo-
derate depletion is well borne by the
melancholic. But prevenesection
may convert quiet melancholia in-
to delirium. M. Bottex especially, re-
commends the employment of
baths tepid water in which the pati-
ents should remain for a length
of time. The purgatives which
is suited above all others for in-
sane patients is oleum tiglii
of which one or two drops, blended with
honey or syrup, and mixed with any
fluid, may be easily given to any
patient. When the disease resists the
use of bleedings, Baths, and purgatives

M. B. recommends that an issue be at once established - in the thigh in women whose menstruation is irregular, and the nape of the neck in all other patients. He prefers an issue made with the cautery or with caustic to a seton, as he is of opinion that the very effort made by the part to throw off the escar exerts a powerfully derivative influence.

The use of sedative narcotics, as morphia, digitalis, and Hydrocyanic acid, is frequently productive of excellent effects. Dr. Mayo considers tonics valuable in the first stage of insanity, in the serous and the nervous temperaments, but mischievous

in the bilious and sanguineous.

The intention of sedatives is in every stage of the disease a wise one. By soothing the patient, we at once give him wholesome strength, and reduce morbid action-

our able professor Dr. McSherry stated during his lecture on typhoid fever, that this disease would sometimes cure insanity, and vice versa would sometimes produce it.

Each case, be it remembered, requires some speciality in its treatment and the adaptation of the remedial means to the varying conditions of different patients is the best test of the physicians discrimination and skill.

An
Inaugural Dissertation
On
Intermittent Fever
Submitted to the examination
of the
Provost, Regent & Faculty
of
Physic,
of the
University of Maryland,
For the degree of
Doctor of Medicine,
By
Warner Lewis D.
of
Essex County Virginia.

Session of 1866-7.

I propose to consider the simple form of Intermittent Fever, known as "Fever and Ague" In selecting this subject I am aware of its apparent simplicity; for even the non-professional are deemed wise enough to comprehend it. But while the insolent are satisfied with beholding the smooth mirrow-like face of the limpid waters; the eager pearl-diver breaks through this mirrow and obtains the pearl of great price. While the ignorant are fortunate in tracing our subject to Malaria, (some thing they know nothing about) the untiring Salisbury has penetrated the noxious miasmate and plucked the little sphorule from its powder like bed. I am encouraged when I remember that the cup of knowledge is yet overflowing, and that Nature a mother kind alike to all-
Still grants her bliss at [illegible]

Intermittent Fever.

This is a periodical febrile disease, characterized by paroxysms and distinct intermissions.

All of the symptoms usually come on and go off in the course of a single day and night. The patient should be entirely free of fever during the intermission. The apyrexia or intermission includes the time from the end of one paroxysm to the commencement of the next. The interval embraces the time occupied by paroxysm and intermission.

Types.

There are three types of importance generally mentioned in medical works, the quotidian, tertian, and quartan. The quotidian is characterized by a single but one paroxysm in every twenty four hours. The tertian

has one paroxysm in forty eight hours: the quartan has one paroxysm in seventy-two hours. Besides the three types just mentioned there are several others, but they are of rare occurrence. Of the three principal types the quotidian and tertian are much more frequent in their occurrence than the quartan, and the quotidian the most frequent. We meet with various modifications of these types; such as a double quotidian with two paroxysms daily; a double tertian in which the characters of the successive paroxysms differ, but the alternate exactly correspond. The form in which the paroxysms occur in one day, and none the next is termed the double tertian. The double quartan is the variety in which out

or tertian runs two have each one paroxysm, and the other none. The tripen quartan has a paroxysm every day, but the three successive paroxysms differ from each other, each corresponding to the three preceding.

The paroxysms generally occur during the day, rarely at night. The quotidian and tertian occur more frequently in the morning; the quartan often as either occurs in the afternoon

Symptoms.

Intermittent fever has three very distinct stages, termed the cold, hot and sweating.

The premonitory symptoms are sometimes absent, and a paroxysm may attack a person when in apparent good health, but in a majority of cases a feeling of general malaise warns the

patient of the approaching struggle.

Cold stage

After a little stretching gaping a sensation of cold steals over the patient, beginning in the loins and extending from thence over the back and limbs, and in a short time decided rigors may come on. The sensation of cold is frequently very disagreeable, seeming as if a thousand little ice bergs were blocking up the "river of life". The sensation of cold is often deceptive, for upon placing a thermometer in the axilla it will show an increase of temperature, but the tip of the nose, ears, fingers and toes will generally be found to be cold, and I think they afford good objective signs for the physician. Blueness of the nails is characteristic.

The surface is usually pale and not unfrequently presents the appearance known under the name of cutis anserina. The internal organs are in a state of congestion. The hands often shrunken, if the purging is severe, features contracted. Tongue is little changed in this stage. All disposition or desire for food is lost, often nausea and even vomiting. Respiration is irregular and the patient's distress in the praecordial region is often very oppressive. Pulse irregular and feeble. The secretions with one exception are diminished, urine rather copious and limpid.

Nervous system affected as shown by pains in the back, [illegible]. Duration of the cold stage is variable, may last from a few minutes to several hours, the average is [illegible]

The cold stage gives place to the hot by gentle and almost imperceptible gradations, flushings of heat pass over the patient, and the cold sensation melts away to be succeeded by the febrile action, which imparts to the patient a no less distressing feeling of heat than but a few short moments previous he experienced from the cold

Hot stage

This stage is characterized by the febrile action, which is not in direct keeping with the intensity of the cold stage, for frequently slight rigors are followed by high febrile symptoms. The [illegible] breath is sensibly increased in temperature, skin is hot and distended with blood, face flushed, the eyes sparkle, mind may be more active than normally, as shown by remembering things long or [illegible]. The temperature

is positively increased, there is no
secretion now. Pulse is quick strong
and compressible, respiration accelerated
but more regular than in the cold
stage. Mouth dry, and the tongue
furred, which is due to a diminu-
tion of the secretion of the glands
of the mouth, and not as was once
supposed to any sympathetic con-
nection between it and the diseased
[illegible] of the secretions are diminished
Urine scanty and high colored.
Thirst usually a prominent symptom.
Duration is from two to eight hours.

Sweating stage

Perspiration first makes its appearance
on the face and head and from
thence extends over the surface. It
is generally profuse and from its
first appearance the patient expres-
ses himself much relieved, and the
[illegible] gradually subsides as the
perspiration advances. The secretion

nor all return. Thirst not nausea headache all disappear, and the patient usually falls into a refreshing sleep; from which he may awake feeling pretty comfortable. Duration is generally some two or three hours when it is succeeded by the apyrexia

Apyrexia

The patient is now free of fever. and he may express himself as feeling perfectly well but there is usually more or less discomfort. Appetite is changeable, sometimes unimpaired or even morbid, patient looks pale and sallow. Duration of the paroxysm is very variable, sometimes the patient may go through the three stages in an hour, or it may last the greater part of the time of the succeeding one. The paroxysms shorten as the disease progresses. The cold stage is often [illegible] in children,

probably the only signs which may present are blue nails, cold ears and nose. In rare cases the paroxysms commence with the hot stage, and are termed "dumb agues" in contra-distinction from the shaking ague. Sometimes the sweating stage may be absent, a vicarious discharge taking its place, such as diarrhoea, copious flow of urine, or effusion into a cavity constituting dropsy. Grades. It may be sthenic or asthenic, when the latter is attended with great depression of the vital powers immediately endangering life itself, it is termed pernicious.

Complications are frequent and numerous. The organ most frequently affected is the spleen; it is hypertrophied and congested. The stomach and bowels, liver and lungs are occasionally affected. Complications of the two spleen stomach and bowels during summer and fall, and of the lungs during the winter and spring. Sequelae. Anaemia quite frequent, and

occasionally we meet with an engorged and hypertrophied state of the spleen known is ague cake. During frequent attack of chills in cases the intermittent form is not itself protective against Tuberculosis but rather predisposes to it.

Anatomical characters

The spleen is always engorged and easily ruptured. It is said with some degree of plausibility thought that the blood becomes broken down and disorganized in the spleen; and in this way pigment matter becomes disseminated through the circulation, and deposited in the liver and other organs, thus producing derangement of these also. The disorganization of the blood is supposed to take place during the paroxysms, if so, we see the importance of their speedy arrest.

Diagnosis. This is not often difficult, (but) sometimes it may be confounded with the remittent form, but a little

careful examination will satisfy you as to the type, for in the remittent form the fever is never entirely absent. It may be mistaken for hectic fever, but the irregularity in the recurrence of the paroxysms of the latter, and the night sweats are very characteristic. In pulmonary tuberculosis we meet with febrile paroxysms very similar to those of intermittent fever, even passing through the three characteristic stages, but these paroxysms occur most frequently in the evening. In making the differential diagnosis we must consider the condition of the patient for disease and the exposure to malaria.

Prognosis is favorable. The greatest danger is from the sequelae, affections which may [illegible] its course. An herpetic eruption about the lips and nose is a favorable sign, as also the later and later recurrence of the paroxysms. The quartan is considered the hardest to cure, and the tertian the easiest.

Cause -

This has been the subject of much conjecture, and of no little investigation of late Dr Salisbury has contributed much to our yet small stores of knowledge on this important as well as important subject.

I believe all agree that this disease is due to a something termed "Malaria". The word means bad air, and whatever it may be, heat, moisture and vegetable decomposition seem to be requisites for its production. Not much light has been derived from chemical analyses, nor are the microscopical discoveries of other investigators of any use as the warm sun of summer sheds its desiccating rays on all terrestrial objects and dries the surface water in low Miasmatic districts and exposes the decomposing materials to view we notice the formation

of a powder-like substance over the surface of the soil. This powder is supposed to contain the cryptogamic spores which constitute the Materies morbi. These spores are mainly elevated above the surface during the night; they rise and are suspended in the cold, damp exhalations from the soil, after the sun has set, and they fall again to the earth soon after the sun rises. Dr Salisbury thus describes the symptoms experienced by himself during repeated visits to the Sedue grounds. "In a very few minutes after my arrival on the bog, I began to feel a dry feverish constricted feeling in the mouth, fauces and throat. This feeling increased till the fauces and throat became very unpleasantly parched and feverish. The opposite walls in swallowing adhered together and the normal mucous secretions were quite entirely checked.

There was a constant desire to swallow hawk and spit; without being able to raise much or to relieve in the least the dry feverish constricted sensation. This feeling soon extended to the bronchial and pulmonary surfaces, which became dry feverish and constricted with a heavy congested sensation and dull pain. These peculiar symptoms lasted about two hours after leaving the bed".

The malaria is capable of being transported from the seat of origin to neighboring localities. This is conclusively shown in many instances of continued blows from the malarial regions; when what had heretofore been healthy situations become very sickly.

Trees seem to have a protective influence in warding off the deleterious influence of the poison. A case has fallen under my obser-

-vation apparently verifying this state-
ment. An appalling storm visited the
district in which I live and prostra-
-ted many of the forest trees which
intervened between the residence
in question and the low grounds, and
what had been quite a healthy
place became almost uninhabitable,
and continued to be very sickly
until the forest was in a meas-
ure replaced.

In certain instances
the poison seems to lie dormant in
the system for a considerable time
awaiting some exciting cause to
call it into action. To substantiate
this, I will cite the cases of four
young men of my acquaintance,
who were raised in a well
known malarious country, and mo-
-ved last October twelve months to
a mountainous region where In-
termittents are unknown. After re-

-maining in the latter locality for a short time, all to a man were taken with Fever and Ague and it continued interruptedly during the succeeding winter - One of these gentlemen had never had an attack previous to leaving the miasmatic country -

The paroxysmal character of this disease is thought to be due to the ferment of a poison in the blood - The supporters of this hypothesis consider the sweating stage as nature's mode of eliminating the ferment, but in case that all is not thrown off the remnant acts as a ferment, and increases until sufficient accumulates to bring on the succeeding paroxysm -

Treatment-

The treatment in the cold and hot stages is chiefly palliative. Cold stage. At the very commencement of this stage an opiate may be administered; it often shortens the paroxysm. Diffusive stimulants (not alcoholic) may be used to advantage. Wrap the patient up well in blankets, and apply warmth to the body externally.

Hot stage. Use water both externally and internally. Externally by sponging the surface of the body; and internally by allowing the patient drink freely cold water. It is a sad mistake to deny a poor thirsty man water one of the greatest boons ever bestowed upon poor fallen man by a beneficent Creator. Ice may also be employed if the stomach is not irritable. A nitrous powder may be admin-

-istered with marked effect. The
diaphoretic draught given every
hour or two is often more or less
beneficial in alleviating the
suffering of this stage.
Sweating stage. In this stage no
treatment is called for. Be careful
not to arrest the sweating process,
since fever may be brought back.
All cold drinks and cold applications
are positively forbidden, as they
have a decided tendency to
arrest the perspiration.

Intermission.

All authors of note from the days
of Sydenham down to our own
enlightened age have arrived at
the same wise conclusion i.e.
that the intermission is the
proper time to employ curative
means. If Materia Medica contains
a specific, and if there be such
an agent in the treatment of a

disease under consideration, I do not hesitate to say that it is the sine qua non of quinea. No remedy can compare with it in the treatment of this disease. Its primary action is as yet unknown. There are three theories in reference to its action. One theory is, viz that it acts on the nervous system and expends its force there, and in order that the malaria which has been received into the system shall be eradicated an impression must be made on the nervous system. Technically termed syncopism.

The second theory is that it acts through the vascular system and exerts a direct antizoetic influence over the malarial poison, which is thought to inhabit in the blood. This theory is quite plausible since quinine and tannin constituent of which have been found to be

chemically analogous, and taurine will destroy malaria out of the system hence the supposition that quinine which is chemically the same agent must exert the same action on the malaria after its introduction into the system.

Still a third party assert that it acts through the vascular system without any antidotal influence, but acts as a reconstructive agent, supplies something to the blood which is wanting. That quinine acts through the blood is very conclusive, since fibrine is increased, and we also find that quinine is eliminated by the kidneys. Time for administering quinine. It must not be given just previous to, or during the paroxysm since it would tend to increase its severity; immediately after the paroxysm is thought to be the best time.

In the tertian form it is necessary to give quinine the well sample but in the quartan form it is best not to give it during the entire intermission; give one large dose just after the paroxysm - Quantity necessary to arrest the disease - I think from five to ten grains will suffice in mild cases, but usually it requires from twelve to twenty grains, which must be given in one intermission. I prefer only moderately large doses, since some persons from idiosyncrasy are affected by much smaller doses than usual; it should be stopped as soon cinchonism is induced, which is known by buzzing in the ears &c. I would divide the quantity to be given into three or four doses. Contra-indications Acute inflammation of the brain forbids us to use it; in the inflammation first then subdue it acute

inflammation of the stomach contra-
indicates its use by the mouth.
Common inflammation does not pre-
-vent its use. Modes of administer-
-ing it. There are only three modes
much used. By the mouth, this is
the most natural channel, but
some conditions of the system will
not permit us to employ this mode.
Hypodermic method; valuable in all
cases where it cant be taken by the
mouth, and also on account of the
great economy in the use of this very
costly medicine. Objections some
say it is liable to cause vomiting,
but its chief objection is its liability
to produce abscesses, which is due
to the difficulty in dissolving it, for
if it be not entirely dissolved it
will be deposited in the tissues
and act as foreign substance. It
will also cause irritation if you are
not very careful in adding the Sol

Formula quinea Sulph grs iii - aq ʒi and just enough aromatic SO_3 to render it entirely soluble. By enema - This mode seldom employed. It was once thought necessary to premise the use of quinea by some cathartic; but it is now considered useless delay.

Substitutes for Sulphate of quinea. Arsenic much used - Fowler's solution best preparation. It sometimes causes subsequent serous effusion; but this not dangerous. To prevent effusion, combine it with opium.

Arsenic is given in those cases where quinea has failed. Its cure is more permanent; yet we prefer quinea since it is followed by no evil effects. Formula for administering Fowlers solution gtts v ter die for three days. gtts iii ter die for three days, and then gtt i every morning until the the twenty first day. Sulphate of Zinc is employed sometimes -

The sulphites and hyposulphites have been successfully employed in recent practice.
6th The theory concerning their action is based on the principle that malaria acts as a ferment, and since these medicines arrest the fermentative process out of the body they are thought to exert the anti-fermentative action in the system-
Mineral acids, gallic acid, salicin, piperin, and many other substances contain anti-periodic virtues; but all inferior to quinea- Uses of opium. It is not now supposed to possess any anti-periodic virtue, but highly alleviating in three conditions 1st In cases of irritability of the nervous system, as occurs in the hot stage. 2nd When you are called to a patient too late to administer quinine to prevent the impending paroxysm, especially if you have reason to apprehend its severity. In such cases combine a little quinia with the opium- 3rd When the patient

has a very irritable stomach and he objects to the subcutaneous injection of quinea. Radical cure. It is advisable to take ten grains of Sul of quinea every seventh day for several weeks after the apparent cure.

Prophylaxis. Quinea is thought to keep off an attack if taken during exposure. When you approach a miasmatic district begin the quinea by taking grs IV every day, and continue this dose as long as you remain in the country and keep it up for at least two weeks after leaving. The miasmatic regions should be avoided by those non-acclimated from first of July to first while frost of Autumn. Sequelae are best treated by the bark and Fe. Anaemia is best removed with citrate of Fe and quinea.

Very respectfully

W. Lewis Jr

Feb 13th 1867

AN

Inaugural Dissertation

ON

The Tongue.

SUBMITTED TO THE EXAMINATION

of the

Provost, Regents and Faculty

of

PHYSIC,

of the

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

Doctor of Medicine,

by

Theodore Strahan

of

Maryland

Session 1866 & 67.

Introductory.

The Tongue is that little active and very important organ of the human body which will constitute the subject of my Thesis.

I have chosen it not because other organs of the body would not supply material enough to write a Thesis but because I think that of all the parts which go to form the grand structure the Tongue stands inferior to none in the human body.

I will therefore in as brief and concentrated a form as possible present my views on the subject.

The Tongue

— Kingdom —

The Tongue is a flattened muscular organ, it resembles a leaf in shape and is attached to the inner surface of the symphysis of the lower jaw in front and os-hyodies behind.

It has attached to it several muscles which facilitate it in the performance of its office, they are named as follows, Genio Hyo-glossus, Hyo-glossus, Lingualis, Stylo-glossus, Palato-glossus. These names show their origin and insertion; and, they are all voluntary muscles.

The arteries that supply this organ with blood are the Lingual and Ranine arteries, the Lingual is one of the branches

of the external Carotid, The Ranine is a continuation of the Lingual and terminates at the tip of the Tongue.

The veins of the Tongue are numerous they are superficial and deep and terminate in one common vein, the Lingual which vein returns the blood from the Tongue and empties it into the internal jugular vein; and before it returns again it is oxygenated, in the Lungs.

The nerves which supply the Tongue with motion as well as sensation are, first the Hypso-glossal, or Lingual which is a motor nerve of the Tongue.

It arises by several filaments, from the groove between the pyramidal and

olivary bodies, in a continuous line with the anterior root of the spinal nerves, the filaments of this nerve are collected into two bundles, which perforate the dura mater seperately, opposite the condyloid foramen and unite together after their passage through it. The nerve descends almost vertically to a point corresponding to the angle of the jaw, it is at first deeply seated beneath the internal Carotid artery and internal Jugular vein, and intimately connected with the Pneumogastric nerve; it then passes forwards between the nerve and artery, and descending the neck becomes superficial below the Digastric muscle.

It passes beneath the Mylo-hyoid muscle, lying between it and the Hyo-glossus, as is connected at the anterior border of the latter muscle with the Gustatory nerve; it is then continued forwards into the Genes-hyo-glossus muscle as far as the tip of the Tongue, distributing branches to its substance.

The nerves of sensation are two, the Gustatory, and the Glosso-pharyngeal, the first of these called the Gustatory or Lingual branch of the fifth pair, supplies the papilla and mucus membrane of the Tongue. It is deeply placed through the whole of its course, it lies first beneath the

external Pterygoid muscle, together with the inferior dental nerve, being placed at the inner side of the latter nerve and is occasionally joined to it by a branch which crosses the internal maxillary artery. the corda Tympani also joins it at an acute angle, in this situation, the nerve then passes between the internal Pterygoid muscle and the inner side of the ramus of the jaw, and crosses obliquely to the side of the Tongue, over the constrictor muscle of the Pharynx and between the Stylo-glossus muscle and deep part of the Sub-maxillary gland, the nerve lastly runs across Wharton's duct and along the side of the

Tongue to its apex, being covered by the mucus membrane of the mouth. The Glosso-pharyngeal nerve is distributed as its name implies, to the Tongue and Pharynx, also to the Fauces Tonsils and a portion of the Pharyngeal muscle, and a special nerve of taste in all the parts of the Tongue to which it is distributed. Its deep origin may be traced through the fasciculi of the lateral tract, to the nucleus of gray matter at the lower part of the floor of the fourth ventricle, external to the fasciculi teretes, from its superficial origin it passes outwards across the flocculus, and leaves the skull at the central part of the jugular for-

-amen, in a separate sheath of dura mater and arachnoid, in front of the pneumogastric and spinal accessary nerves. In its passage through the jugular foramen, it rests on the lower border of the petrous portion of the temporal bone; and, at its exit from the skull, passes forwards between the jugular vein and internal carotid artery, and descends in front of the latter vessel, and beneath the styloid process and the muscles connected with it, to the lower of the stylo-pharyngeus. The nerve now curves inwards forming an arch on the side of the neck lying upon the stylo-pharyngeus and middle constrictor of the Pharynx,

above the superior laryngeal nerve.
It then passes beneath the Hyoglossus
and is finally distributed to the
mucus membrane of the fauces and
base of the Tongue, the mucous
glands of the mouth and Tonsils.
"This is according to Gray's discription of nerves."

The Papilla of the Tongue.

The whole surface of the Tongue is
covered by a dense tissue analagous
to the corium of the skin which gives
support to the papilla, of which there
are four kinds. viz Circumvallate,
Conical, Filiformes and Fungiformes.
Dr. E Wilson states that at the root
of the Tongue there are a few mucus glands
which open on the surface, they have

been improperly described as papilla by some Authors.

These papilla are the seat of taste owing to the sensative nerves ter-minating into them. It does not follow that everything that enters the stomach through the mouth is tasted because it touches the nervous papilla, as there are some substances which have no taste and may be swallowed without exciting these nerves of sensation. moreover there are substances which are only tasted to a limited extent, principally on account of their solubility. An insoluble body will not be tasted as readily as a soluable body, therefore substan-

-ces in solution, can be tasted better than substances in a solid state. One substance will destroy the taste of another, though both may be in solution, that is if one is stronger than the other. In the event of our wishing to distinguish one sub-stance from another, and the Tongue is rendered unfit by having in contact with it a stronger substance, we have to restore the organ to its na-tural condition by using water, or wait until the saliva restores it to its proper tone.

The Tongue like other organs of the human body is liable to injuries, and subject to diseases, the causes

may be centric, or eccentric.

Centric, when the organ is directly affected.

Eccentric, when in sympathy with other organs, or parts of the body in a diseased state.

I will in the first place notice the centric causes, and give the general treatment.

Although protected by muscular, and boney walls, which form around it a complete casement this organ may be wounded by bullets, or other missles discharged from guns, or fire-arms of any discription. Or it may be injured by any sharp instrument violently thrust into the mouth.

When this organ is wounded it is generally attended with severe hemorrhage, from the lingual artery and veins. If the bleeding orifice cannot be otherwise tied, one or more ligatures must be introduced with curved needles, so as to include and constrict the bleeding parts. If this will not answer, Astringents must be resorted to. If these fail, we must use the actual cautery.

The Tongue may be likewise attacked with cancer. There are in some individuals a cancerous diathesis, which is hereditary passing from one generation to another.

This organ is liable to be attacked, ~~with~~

with this fearful complaint as any part of the body, and more especially if there is any exciting cause, such as decayed teeth, smoking a pipe, the stem of which rests upon one part of the tongue at the same time a stream of smoke is drawn in, which irritates the parts.

But cancer may attack the Tongue, independently of any foreign body acting as an irritant, as above stated. The symptoms are, difficulty of swallowing and articulation; foetid breath; and loss of flesh. Cancer of this organ almost always proves fatal. If however detected before it has gotten much head way, or, before

it produces a deep excavated ulcer, it can be removed with the knife, and the patient may recover. It is therefore not necessarily incurable.

Glositis, or, Inflammation of the Tongue is known by great swelling; tenderness, difficulty of speaking, and deglutition. The Tongue becomes sometimes so hypertrophied, that it protrudes from the mouth. Severe salivation is one of the exciting causes, but it may occur in an acute form independent of this cause.

Treatment. Local bleeding with lancet, or leaches, is the best means we can employ to cure this disease.

A case was successfully treated by

Prof Nathan R Smith of the Uni-versity of Maryland with leaches. Other remedies are good under some circumstances. Astringent gargles, Purgatives and anti phlogistic treatment.

Ranula, this is a form of tumour which occurs under the Tongue, it contains a glairy liquid.

Treatment. Open the sac by simple free incision; after the contents are discharged cut out a piece of the sac. should this not suffice the sac may be burnt out by Caustic Pottassa.

Paralysis of the Tongue, wholly or partially. If the Tongue is wholly paralysed the patient is rendered

dumb; if partially the person ar-ticulates words with difficulty, Stam-mering is a species of partial par-alysis.

Tratment. Unfortunately there are no remedies yet discovered that can cure paralysis. we may try the power of Electricity, or the pre-parations of Strychnos nux vomica, Arsenic, Bromine, and such powerful remedies as these, but they only give temporary relief. As a gen-eral rule, paralysis baffles our skill to make a permanent cure.

Tongue tie, is a prolongation of the fraenum lingua, or bridle of the tongue, confining the apex of this organ to the

lower jaw. It is usually detected, by the difficulty ~~with~~ which the infant has, in sucking the breast of its mother. If the child is old enough to talk, it is easily detected, when it is speaking. Words, or sentences are not uttered distinctly. This may be easily relieved, by dividing the franum with a blunt pointed pair of scissors, taking care to keep as close to the lower jaw as possible, so as to avoid wounding or cutting a small artery that is supplied to the franum from the sublingual artery.

Ulceration of the tongue, presents many varieties, one of the commonest, is, that which arises from irritation

of decayed teeth,

Treatment. First remove the irritating cause, by extracting decayed teeth, should it depend on any other foreign body remove it as soon as possible. then use astringent gargles and touch the ulcer with a weak solution of the Nitrate of Silver.

A more troublesome type begins with aphthous spots on the Tongue, which produce excessively irritable ulcers, tedious and difficult to cure.

Treatment, Aperients, Tonics, for the constitutional treatment, and for the local treatment, touch the ulcers with Nitrate of silver.

Syphilis, either secondary or tertiary

are liable to cause ulcers on the Tongue, which are to be recognised by the character of the ulcer, and history of the patient.

Treatment. The best mode of treating these ulcers, is by directing our remedies to the constitution of the patient using the antisyphilitic.

Thus I have endeavoured to give all the principal centric affections to which the Tongue is liable.

The Eccentric causes.

Are affections of the Tongue which have an indirect effect upon it, for instance, when the Stomach or Liver, are not performing their functions properly, or when the whole body

is burning with fever, the Tongue will be more or less coated, thus acting as one of the signs by which the practitioner is enabled to make out his diagnosis.

The following are among the principal diseases with which the Tongue is affected eccentrically. I can only thus briefly refer to the disease, for to give the Cause, Pathology. Diagnosis, Prognosis, Treatment &c. of each particular case would expand my Thesis beyond its proper limits.

In Typhus Fever the Tongue becomes white and tremulous. It also becomes clammy and dry. Sometimes it is

clean, and smooth. and more frequently furred. Its edge and tip will perhaps be red, then a white fur will begin, which either covers the central part of the Tongue, or is divided by a straight brown streak which is often the first step to dryness and blackness of the Tongue. In Typhoid Fever the Tongue is dry, and coated with a whitish fur, and on its surface it appears as if it was cracked.

In Scarlitina, the Tongue is coated, and has the appearance of a Straw-berry, hence called "Strawberry Tongue". The tip and edges of the Tongue are very red, while the rest of the Tongue

is covered with a thick white fur, through which the papilla exhibit their red points.

In Bilious Intermittent Fever the Tongue is coated with a yellowish fur which we term bilious coating.

The Tongue is not coated in all fevers, though it is in most ~~of~~ of them.

In Pneumonia the Tongue is dry in the onset of the disease, and when it assumes the Typhoid form, the Tongue is coated and looks brown.

In Thrush there are white spots on the Tongue.

The Stomach.

This organ is frequently out of order, more so than any other part of the Alimentary Canal, and it is almost

always followed, with coating of the Tongue. Dyspepsias, Gastritis, Gastrodinia, Cancer, with sometimes Induration of one of its orifices are the most common diseases of this organ which invariably affect the Tongue. The Liver also when the bile is not secreted, and excreted, according to the laws which govern it, there will not only be a yellowish hue over the whole body, known as Jaundice but the Tongue will show a bilious coating.

In Enteritis, the Tongue is likewise furred.

In Dysentary the Tongue becomes red and dry.

In Diarrhoea the Tongue is furred.
The Tongue is more or less affected, when any part of the Alimentary Canal is in a disordered state.
Besides those already mentioned, there are other eccentric causes, but of so little importance that they need not be refered to.
The human body is a most wonderful machine, and like all other machines, is liable to get out of order through a variety of causes. If even the smallest wheel goes wrong, it will throw the rest out of position, and therefore it cannot perform its office until they are all replaced, showing that one part of the structure is dependent

on the other, the hand cannot do without the arm nor the arm without the body. The body cannot say that it is independent of the arm, or hand, one acts coordinately with the other.

The voice, is that sound produced by the vocal chords. When air is passing between these chords in a state of tension, the sound is modified according to this tension, and is regulated by the Tongue so as to pronounce words, and utter sentences, the signs of our ideas.

How beautifully all the parts work together, the Lungs act the part of a bellows to receive and expel air

through the Trachea, by either the mouth or nostrils. When the mouth is in a quiescent state, we breath principally through the nostrils, and when speaking, eating, singing, &c the nostrils are never in a state of entire repose, for air is passing continually through them if not obstructed by some foreign body. We can breath through the mouth, without producing an audible sound, but if we wish to speak, or sing the sounds are produced by the tightening of the vocal chords at the same time air is forced between them.

There is another mode of producing

sounds independent of the vocal chords, it is a shrill sound called a whistle, which is made by the contraction of the Obiculares Oris muscle and all those muscles connected with it assisted by the Tongue to make a narrow orifice for the air to pass through, the degree of intensity of this sort of sound depends upon the power the Lungs have to force air through the opening thus formed.

Speech, In speaking the Tongue utters the thoughts which originate in the mind, thus we can communicate to others whatever we wish.

This is a source from which we derive a vast amount of pleasure and can realize a reciprocity of sentiment and feeling with our fellow beings. who can estimate the loss of such enjoyments?

Look for instance at the prisoner doomed to end his days in solitude, incarcerated in a dark and dismal cell, where no sweet sound can reach his ear, and nothing to break the silence, but the everlasting clank of chains.

How unhappy also must have been the builders of that mighty Tower, of Babel, whose top should reach to heaven, when they found, that

they could no longer communicate intelligently one with another, for God had caused a confusion of tongues.

What stupendous power this little organ has, either for good, or for evil, knowing this we should ever be careful how we use it; for an indubitable authority has said. "The Tongue is a little member and boasteth great things, and the tongue is a fire a world of iniquity, it defileth the whole body, and setteth on fire the course of nature, and it is set on fire of hell."

AN

Inaugural Dissertation

ON

Intermittent Fever

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Edward Ed. Jones

Of

Maryland

Session of LIX, LX 1866-7

Inaugural Thesis

To the medical student, nothing is more surprising than the selection of a subject for an Inaugural Thesis. So varied, so extensive, is the field of medical literature, so interesting and important everything connected with the science, that he scarcely knows which demands his attention. As the disease of which I am about to treat, has attracted more than usual notice during the past few years, I have been induced to make it the theme of my essay. Nothing new, nothing original, is to be expected from a tyro in the science of Medicine. In the following pages, it is my intention to embody some of the

views of my father on Intermittent
Fever. It would be needless to give
a definition of the name of the dis-
ease, as it fully explains itself.
Intermittent Fever has been known
from the earliest times. It prevails
in both and South America, near
Rome in Italy, in Holland, and
some parts of England. It is said,
that in the 16th Century, in England,
it raged with fatal violence and in
the year 1558, it assumed all the
terrors of the plague, and carried
off large numbers. Since that time,
it has become less frequent in the
British Isles, and this may be as-
cribed to the most improved

of the mass of the people, to their habits of cleanliness, and to the improved condition of the lands by drainage, and tillage of the soil.

The peculiar characteristics of Intermittent Fever, readily distinguish it from all Idiopathic fevers, because of its occurrence in paroxysms, each of which may be reckoned as an epitome of a febrile disease, having in the course of a few hours, all the stages of fever.

Some have denied the specificity of the term Intermittent, as applied to this disease. "For, although the prominent symptoms have abated, there is not an entire cessation of the

morbid phenomena, but a doubtful, temporary quiescence." But as we have no name that could be more appropriate, why enter into a discussion, void of interest and importance? The paroxysms, recur at stated times, and the period from the cessation of one paroxysm, to the beginning of the next, is styled, the intermission, or apyrexia; the entire time occupied by the paroxysm, and the intermission, is called the interval.

The type of the fever, is determined by the length of the interval. From the earliest times, three primary types have been recognized — the Quotidian, Tertian and

Quartan, in which the paroxysm completes its revolution in the periods of twenty four, forty eight and seventy two hours. The Quintan, Sextan, Septan types have been are spoken of by some medical writers, but their occurrence is comparatively rare, and it may be questioned if they are ever seen. The double quotidian, in which two paroxysms take place within twenty four hours, is sometimes observed. So are the double tertian spoken of.

The Symptoms which occur in an ordinary case of intermittent fever, may be divided into the cold, hot and sweating stages. The regular paroxysm is

usually preceded by the symptoms common to the others fevers. Feeling of languor, lassitude, and general uneasiness are present, and these may be accompanied with pain in the back, head, and extremities, and loss of appetite. Generally very little febrile excitement is noticeable, and not until after the occurrence of several paroxysms, each one being more violent than the preceding does the patient apprehend any danger. If the disease were recognized in this stage, it could be cut short by the prompt adoption of the proper treatment. At times a violent paroxysm sizes the patient, and he is

stricken down, by the first onset of the disease. In the incipiency of an attack of Intermittent Fever, the patient experiences a feeling of weakness and uneasiness in the epigastric region. He begins to yawn, to stretch himself, and chilliness comes over him, especially in the back, along the spinal column. Some authors compare this sensation to a small stream of ice cold water flowing down the back: this often extends itself to the breast and abdomen. The prostration of the muscular forces is considerable and the chill is almost insupportable. A sudden thrill runs through the whole system, the teeth chatter, and the bed is often shaken

by the involuntary motion of the body. Notwithstanding all this, the heat of the external surface of the body is often greater than in health, yet the reverse may take place. The respiration is often sensibly affected, and the inspiratory effort performed with difficulty. Together with the feeling of coldness, the surface often presents a roughened appearance, called by some medical writers, cutis anserina, or goose flesh. This is caused by the projection of the sebaceous and capillary follicles, whilst the skin shrink. The features are contracted, the eye looks dull & heavy, and the lips assume more or less, a livid hue.

In this stage, the pulse is very variable. Most patients complain of a dull headache, and pains in the back and limbs. There is often very great thirst; although the tongue remains moist. The duration of the cold stage is variable; it may last a few minutes, it may be several hours. There is a distinct line of demarcation between the cold and hot stages; the one gradually runs into the other. The skin becomes hot and dry - or flushes of heat run first about the body, and the face looks puffed and swollen. The respiration is still accelerated. The signs now have entirely

disappeared and intense heat pervades the whole system. The temperature of the body is without doubt increased - By some it has been found to range in Great Britain 110° and in warmer climates, 112°. The tongue is now parched, and dry, and the patient is tormented by an almost unquenchable thirst. The head also is increased, and seems more deeply seated than in the former stage.

I have frequently heard patients say that their head seemed to be increased to twice its usual dimensions and they felt afraid to move, lest they should fall. Delirium is rarely present: children are liable

to be siezed with conversions. This stage varies more than the former, and may last from four to eighteen hours. The sweating stage now comes in, and usually a profuse perspiration is poured out over the whole body, beginning upon the face, then extending itself to the breast, and finally to the extremities. With the perspiration the much wished-for relief comes to the patient. All the symptoms described abate, and disappear, and the patient falls into a calm and refreshing sleep. The variability of the [illegible] is very remarkable. Scarcely two cases present the same [illegible]

of symptoms. The cold stage is hard-ly discernable, and it is very uncom-mon to have it well marked in children. At times the paroxysm is ushered in by the hot stage, this is denominated in our country by the name of the "Dumb Ague". Again the sweating stage is wanting, and the fever subsides by an alvine discharge or a profuse flow of urine. It has been supposed by some, that a drop-sical effusion often supplies the place of the perspiration. Dr. Wm. Peck of Pennsylvania, records a very interesting case of a young woman, in whom the whole right side underwent the cold, hot and sw-

sweating stages singularly, well defined, whilst the left side was unaffected. M. Andral also mentions a curious case: "A young man, who had been hemiplegic on the left side of his body from his infancy, was attacked with Tertian Intermittent; he only perspired on that half of the body which had not been paralyzed, he said that in his best health, he only perspired on an arm and leg, and on one side of the face & neck."

Although the Paroxysm have passed away, and the febrile action subsided, the patient is not wholly exempt

from some signs of the disease. Many disagreeable sensations remain still as: languor, pains in the limbs, and extremities, slight headache and uneasiness in the epigastrium and not unfrequently loss of appetite, nay, even an intolerable aversion for food. The countenance of the patient is indicative of disease it is pale and sallow, not even the conjunctiva presents a saffron hue. In some patients during the interval, no appreciable symptoms exist and he is able to go about his ordinary avocations. In the different types of Intermittent Fever, it has been asserted that the paroxysms return

at the same hour. But experience has
proven, that there is often great vari-
ation. The paroxysm instead of
beginning at the exact time of the
preceding day, may commence an
hour or two, earlier, or later.
This disease is liable to various
complications, and thus furnishes
indications for different treatment.
It may be of a sthenic character
with a strong, vigorous pulse, every
thing pointing to a plethoric con-
dition. Again it may be asthenic,
with great prostration, feeble reac-
tion, and a dusky hue of the
countenance. Often we have the
common form of Intermittent

Fever, merging into a typhoid, these differences depend not on the specific poison of the miasma, but on the previous condition of the patient. When the disease assumes a typhoid form, it may be readily distinguished by the increased depression during the chill, the small and feeble pulse, the dryness of the tongue, sordes about the teeth and gums, together with delirium. These cases are usually met with among [illegible] the poor [illegible] who suffer from want of proper nourishment and the common comforts of life. As a description of the Pernicious Intermittent [illegible]

occupy too much space, it must necessarily be passed over unnoticed. In connection or complicated with the disease, the stomach, bowels, brain, lungs or kidneys may be involved. To recognize a lesion of any of these organs, we must refer to the symptoms found when they they are affected, If the stomach be affected we may have the symptoms of gastritis developed, and so with the other organs that may be in a state of disease. If an Intermittent be combatted and overcome at the first onset, no disagreeable consequences are liable to follow, except, that the patient is rendered more susceptible to a

return. On the other hand if it be permitted to hold full sway and run on indefinitely, the most unpleasant consequences may ensue. Enlargement of the Spleen generally follows a prolonged attack of the disease. It has been ascertained beyond a doubt, that the miasmata exerts some peculiar influence over the Spleen and liver. In the cold stage, the increased size of the Spleen may be perceived. This may be accounted for by the recession of the blood from the capillaries, and its congestion in the viscera, and especially in the Spleen, which seems to act as a reservoir for the surplus

fluid, which might be injurious to more vital organs. This increase of the spleen, passes away, somewhat during the apyrexia, and returns again during the recurring paroxysm. In one case at the University Hospital, I saw it occupying a large portion of the abdominal cavity. In places where the disease is prevalent, on account of the miasmata generated, the enlargement is styled "ague cake." The liver also may be come enlarged and hardened, giving rise to jaundice and other hepatic diseases. The countenance of a person, who has long suffered from Intermittent Fever, is very peculiar. Anasarca, and even Ascites

are not unfrequent sequelae of a prolonged Intermittent. The Professor of Practice in his clinic, Jan. 1856 exhibited a well marked case of ascites resulting from this disease. The dropsy often proves obstinate, and defies even the most potent remedies. Miasmata are preeminently the cause of Intermittent Fever. Many believe that all cases of the disease are produced by the same cause, but this can hardly be possible, for instances have occasionally come under notice which could not be traced to any miasmatic influence. Marsh miasmata therefore, to say nothing of predisposing causes, is certainly the exciting cause

of the disease. It is a mortific poison, producing mortific effects upon the human organism. The miamata or malaria, proceed from the surface of the earth, undoubtedly of a gaseous or aëriform matter. We know only of their existence; of their chemical qualities, we can form no conception. We know them only by their deliferous influence and noxious effects on the inhabitants of marshy districts. The celebrated Italian Lancisi was the first who published distinct ideas on the subject in his great work "De noxiis paludum effluviis". There are two things which seem requisite

to produce this deleterious agent — heat and moisture. In cold climates the disease is unknown; the nearer we approach the Equator, the more abundant and pernicious does the poison become. Where, therefore, we have much heat and moisture, there must we find vegetable matter undergoing decomposition, whether this is necessary for the solution of the malarious poison, is yet a matter of debate. Many advocate that vegetable matter is not at all necessary for the production of malaria, and many well attested facts have been brought forward to prove the fact. On this subject, Dr. Ferguson says.

"For producing malaria it appears to be requisite, that there should be a surface capable of absorbing moisture, and that this surface should be flooded and soaked with water and then dried; and the higher the temperature, and the quicker the drying process, the more plentiful and the more virulent (the more virulent probably because more plentiful) is the poison that is evolved." In the latter part of the summer, and in the autumnal months, the disease is most prevalent. In our country it usually makes its appearance in the latter part of August, and ceases at the beginning of Winter.

It is found in almost every part of the United States, except in the elevated mountainous regions; it is also very rare in the New England States. After exposure to the miasmata, the period of incubation is uncertain. No period of life seems exempt from this disease, though middle aged persons are more prone to its attacks. The foetus, in utero has been known to suffer from an attack of Intermittent Fever when the mother was laboring under the same. Intermittent Fever may be confounded with Hectic or Remittent Fevers; but if the symptoms be well marked, it is not difficult to dis-

-tinguish it from the former. Unless the intermission be well defined and of sufficient duration, the discrimination between it, and Remittent Fever is no facile task. In the majority of cases, where no complications coexist, the prognosis is favorable. Inflammation of any important viscus would certainly render our prognosis more guarded. What are always had to fear are the Sequelae, yet if proper means are promptly instituted they are more amenable to treatment. If the intermission be complete the disease can usually be cut short. A few words about the periodicity of the paroxysms in Intermittents

Years. I have never met an expla-
nation of this phenomenon that
seemed to me satisfactory. Some
writers speak of it, yet their expla-
nation falls and the subject is
passed over — leaving only vague
ideas in the mind. The hypothesis
advanced by my father some years
since seems to me a very rational
explanation of the periodicity of the
paroxysm. He contends that the
disease is caused by miasmata or
malaria, which enters the circulation
contaminating it, and causing the
morbid symptoms we witness in
the disease. He believes this poison
to be eliminated from the system

upon each recurrence of the Sweating Stage; But there still remains a part of the virus, which acts as a nucleus for the formation of the specific poison and sufficient having been collected, it exerts its influence on the nervous system, and thus we have the chill and accompanying symptoms of Intermittent Fever developed. In the words the blood undergoes a Zymotic or fermenting process. Years since, it was a question whether the disease should be interfered with, or allowed to run its course. It was argued, that the morbid matter which existed in the system was thrown off by each

paroxysm, and hence it should be
permitted to run on indefinitely
until the poison was expended.
The erroneousness of the opinion
has long since been demonstrated
and no one would now hesitate
to cut short the disease at the very
start. There is little treatment re-
quisite during the paroxysm. In
the cold stage, warm diluent drinks
are to be administered. External
warmth would naturally suggest
itself. Various applications have
been recommended and may be
used at the discretion of the phy-
sician. If the patient is feeble or
typhoid symptoms should [illegible]

their appearance, we are to act accordingly, and stimulants are to be used. Nervous symptoms require appropriate treatment. During the hot stage the effervescing draught or the neutral mixture will find a place. It is during the apyrexia or intermission that the physician is called upon to act. He should begin our treatment with a purgative, or of Calomel and Jalap, which serve to remove the accumulation which may exist in the alimentary canal and thus prepare the system for our after treatment. In this disease we have two specific remedies — Quinine and Arsenic. A multitude

of other remedies have been recom-
mended and employed, but why
seek for other medicaments, when we
have two such powerful agents
at our command? So soon as the
bowels have been evacuated, and
the intermission is well defined, we
should at once commence with
Peruvian Bark, or one of its prep-
arations as the Sulphate of Quinia
which possess antiperiodic qual-
ities, of a high character. Much dif-
ference of opinion still exists about
the administration of this medicine
Some use alarmingly large doses
poured in indiscriminately. But
the majority of practitioners in our

in favor of small doses, frequently repeated. From twelve to twenty four grains may be administered, during the apyrexia, and continued until all predisposition to the occurrence of the chill has passed away. It may be given in the form of pill or solution as the case may require. If it should irritate the stomach, it may be combined with Laudanum or Porrexia. Regard must be paid to the idiosyncracy of the patient. Should the Quinia fail to have the desired effect, recourse may be had to arsenic, in the form of Fowler's solution, in the doses of five to ten drops three times a

day. Its peculiar effects. such as
puffing of the eyelids - biliary [illegible], a
sickness at the Stomach &c. should
be watched and its use discontinued
any such are perceived During the
existence of the disease the diet of
the patient should be regulated
and only light and digestible and
unstimulating food should be
Allowed

AN

Inaugural Dissertation

ON

Scarlatina

SUBMITTED TO THE EXAMINATION

of the

Provost, Regents and Faculty

of

PHYSIC,

of the

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

Doctor of Medicine,

by

Hiram W. Le Fevre.

of

Pennsylvania.

Session Fifty ninth 1866 & 67

Scarlatina.

Among the long catalogue of diseases I have chosen Scarlet Fever as a subject for my essay. A consideration of which I think will prove profitable to me now, and conduce to my welfare hereafter. What prompted me to write on this one particular subject, I cannot say, unless it was on account of the many points of interest it presents to the student mind, or for the great frequency of its occurrence. In our country this disease is so common, and often of such an intractable nature as to merit the appellation of a scourge. By observing the statistics taken of

this disease by those who have treated it largely, the above statement will be verified.

History. There was for a long time continual disputes arising among nosologists as to whether this was a distinct disease or not. The disease itself was not unknown to them; but they did not consider it as one of special origin. It was at one time thought to be a severe form of measles, to which they gave the name morbilli confluentes. Since that period however, much light has been thrown upon this subject; longer investigations were made, and at this date scarlet fever is no longer

denominated a form of measles.
The credit belongs to Dr Sydenham
of England, who first showed the
difference between the two diseases,
"and established the claims of
"Scarlet Fever to its present rank."

Symptoms.-

The most prominent
are a depression of the powers of life,
attended also not unfrequently with
rigors, pain in the back and limbs,
and other symptoms which characterize
generally the onset of disease.

This is then followed by fever more
or less severe, according to the grade
of the affection, and the idiosyncrasy
of the patient. Attended with fever

we then have a quick pulse, the face becomes flushed, the skin is hot and dry, tongue coated with fur, want of appetite, and great thirst. On the second day of the fever, we then notice the rash making its appearance. It is first seen upon the face and neck, after which it spreads, more or less to all parts of the surface of the body. Generally with the fever we have also greater or less amount of inflamation of the throat. The rash is first seen to present itself in minute points of a deep red color; these then commence to form into patches. This affection of the skin is often very annoying to the

patient, and rendering his condition
anything, but pleasant by the constant
itching and burning it produces.

Exacerbations of the fever occur in
the evening, ending occasionally in
delerium; and in some cases more
or less comatose symptoms are thereby
caused. After the malady has
arrived, in its progress up to the ninth
day, as a general thing the symptoms
then decline, the pulse is lowered
and the rash dries up; the tongue
is also relieved to some extent with its coating.

During desquamation or shortly
after that time, if the urine be ex-
amined it will, almost invariably be
found to contain albumen.

After this period however the patient may possibly recover, yet he runs the risk of a great many of its sequelae. He still stands in danger of inflammations of the different organs of the body, and the shock to the nervous system may still act as an impediment towards convalescence.

There are three varieties of this disease Scarlatina simplex. Scarlatina Anginosa, and Scarlatina maligna.

1. Simplex. This is the milder of the forms, and as its name implies, the simplest. All cases of scarlet fever are dangerous, but this form is the least so. We have had a case with a very frequent pulse standing

fever and a slight inflamation of the fauces. Scarlatina Anginosa.

Here the stress of the disease falls upon the throat, which becomes highly inflamed, advancing often to ulceration, and in the formation of false membrane. The rash is generally less in amount in this than in the former. The mucous patches are soft and of a pale color, often extending readily into the pharynx. Also the glands of the neck swell up, and become painful. The inflamation, again, may extend to the tympanum along the eustachian tube, producing ulceration of that membrane; or of the bones of the ear itself.

If after all this the patient still continues to get worse, without any sign of improvement, the disease is most certain to take on the last form S. Maligna.— In this stage the patient is either stricken down at once; or is rendered so weak and debilitated by the attack, that his case is put down as almost hopeless. The skin is observed to be cool on some parts of his surface, and in another preternaturally hot, his face pale, respiration hurried, pulse frequent and irregular.

If the symptoms still increase, they may take on a typhoid form and the system yet further lowered is less able than before to resist the

action of the poison. The pseudo membranous exudation now assumes a darker hue; gangrenous ulceration may take place, which ends frequently in the destruction of most of the soft parts in the vicinity.

Causes. –

This is believed to be contagion of a specific kind, imparted from one patient to another through the atmosphere. Scarlatina may occasionally be found to prevail epidemically, carrying off the greater part of those attacked by it. The age of the patient has a great deal to do with its propagation

children are the most subject to it; in fact it can with propriety be called a disease of childhood. Some cases are on record it is true where adults have been subject to it, but they are rare.

Scarlatina - Among these dropsy is the most frequent and also the most dangerous. If the patient be much exposed after an attack of scarlet fever, dropsy of some kind is apt to be the result. The effusion may take its seat in the heart or brain, causing death in that manner, or it may take on the form of anasarca the latter of which is the most common. Other organs may also become

the seat of disease, and from sepsis the stomach and bowels more for instance take on inflammation, or the kidneys become congested.

Diagnosis.-

Scarlatina may be confounded with measles, with rubella and Erythema. From measles it may be distinguished, first by the catarrhal symptoms which are present in measles, but not in scarlet fever. Then again scarlet fever is always attended with some degree of sore throat, while in measles this is absent. The rash makes its appearance on the second day in this disease, while in measles it does not

appear until the fourth. The rash in measles is also more elevated than in scarlet fever.
Lastly Erythema and Roseola are non contagious, while vaccinia is very much so.

Prognosis.—

Here it must, for the many secondary symptoms which almost necessarily follows this disease, the termination may it be considered more favourable, but as we almost inevitably have some sequelae or complication to contend with, the prognosis formed must certainly be unfavourable. Epidemics of this disease prove very destructive

often carrying off the greater part of the population of the community in which it has manifested itself. Our prognosis must, nevertheless be guarded as the malady is liable to many changes, either for better or worse. If pregnant women be attacked, the disease is very often found to terminate fatally.

Treatment. Great care should be exhibited in regard to the physical condition of the patient. The room in which the patient is confined ought to be well ventilated, and of a medium temperature. Many cases need but little treatment in the way of medicine; cool drinks, and a mild

aperient if the bowels be constipated,
will often suffice.
In the first place an emetic
should be given, at the onset in
all cases, we can use either tartar
emetic or ipecacuanha. This should
then be followed by castor oil,
magnesia, or some other aperient
of a mild nature. Acidity, the
prime bile may be remedied by
the use of alkalies. Nausea and
vomiting by a acidity powders.
Cups and leeches may be resorted
to when there is much inflammation
or when the patient is troubled
with convulsions. In all cases
however no more blood should be

taken than is really necessary; as the system needs all its strength to combat the poisonous influence already existing.

Chlorine is said to be very advantageous in this affection, the dose of the chlorine mixture is from one to two tablespoonfulls, according to the patients age, this to be repeated at short intervals. Complications are to be met promptly, the angina will be found to yield best to local remedies, such as gargles fomentations and counter irritation.

The sequelae are to be treated in the same manner, symptoms should be met as they arise by proper remedies.

Dropsy is best relieved by the employment of purgatives and diuretics, among the diuretics the most suitable are, digitalis, sweet spirits of nitre, and the acetate of potassium. When the system becomes very much debilitated, the use of animal broths and stimulants should be resorted to. Wild cherry bark, or the sulphate of Quinia very often proves useful.

Local Treatment.—

In this disease the bowels demands special attention, and in no case can it be better relieved, than by the employment of remedies locally.

Gargles of alum or of common salt will often answer in slight affections of the throat.

But when false membranes collect, or any nervous paralysis forms, we must have recourse to more efficient means. The infusion of Capsicum with vinegar, often does well. Solution of zinc containing fifteen grains to the fluid ounce of water, in solution, will often do much towards forming a healthy action in the parts.

Nitrate of silver may also be used for the same purpose.

The offensive odor which emanates from these ulcerated parts, may be

corrected by a solution of chloride of lime, or what is better a creosote gargle. When the skin becomes hot and dry, with burning and itching, sponging the surface with cold water, will prove exceedingly agreeable to the patient.

Belladonna is highly extolled by some as a prophylaxis: the efficacy of this drug is not however yet agreed upon.

AN

Inaugural Dissertation

ON

Hurisy.

SUBMITTED TO THE EXAMINATION

of the

Provost, Regents and Faculty

of

PHYSIC,

of the

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

Doctor of Medicine,

by

Walter Bredie

of

North Carolina

Session [illegible] 18[illegible]

Acute Pleurisy

As it is required in this Institute that each candidate before he can come forward for graduation, shall pen an Essay or Thesis on some medical subject, in order that he may be entitled to an Examination by the faculty; who will decide whether or not he is capable of Engaging in a profession, which is the most honorable, responsible, and sacred of all others, save that of divinity. And in compliance to this regulation I have chosen for my Thesis a disease, which when uncomplicated, is rarely fatal, but one which requires prompt and early treatment in order that we may mitigate or relieve our patients from suffering any unnecessary pain. I name Simple acute Pleurisy or Pleuritis

And it is with regret I per. that I am unable to add anything new to the subject I have chosen, but am rather compelled to follow in the step of the many illustrious authors who have so ably searched out and discussed the many truths of the disease, that scarcely anything remains to be expres; and especialy by one so young in years and having scarcely any experience.

I therefore will procede with my subject, Endeavoring to describe it to the best of my ability.

I shall first give some of the anatomical relations, and describe pleurisy as inflamation of the pleura, with an effusion in its cavity, or sack, Hence the disease which is known as pleuring is often and with much propriety called pleuritis. which in itself signafies the nature of the disease, for the termination

"itis," always denotes inflamation
of the organ to which it is added.
The pleura is a lining membrane,
and is reflected over the lungs
just as the peritoneum is reflected
over the abdominal viscera. It is
a closed sack, and hence one of
the serous membranes. one portion
of it, the "costal pleura", lines the
walls of chest which are firm
and unyielding, though movable
to certain extent. the other portion
called "pulmonary pleura", covers over
the spongy lung, which is compressible. The surfaces here are opposite
and move freely one on the other
unless inflamed or roughened. and
for this reason we hear the friction
sound resulting from the chafing
or rubing together of the pleurae.
which continues until Exudation
takes place sufficient to
separate the opposed surfaces.

the pleura being a closed sack
and one of the serous membrans
we may have an Exudation of
fibrine mixed with the serum
inclosed in the sack. and as
fibrine is plastic we can well
account for the false membrane,
which often occurs in this disease
and is generaly described as being
soft: yellowish thick & tough.
In Pleurisy the quanity of liquid
varies, at first there is little. but
as it gradualy increases it may am-
ount to several pints. The liquid
is usualy yellowish or a slightly
colored serum. and is without
odour unless there has been some
opening. liquid is usualy free in
the cavity and changes position
with the movements of the patient
unless a false membrane exist.
The liquid compresses the lung
which is spongy according to the

quanity, and may prevent the
lung from expanding to its nat-
ural position. Sometimes the liquid
is so plentiful as to push the heart
further to left and higher up
so that apex beat may be heard
in the 3rd or 4th intercostal space
under left nipple, or when the
disease is on left side in like
manner push the heart over to the
right side, as it were, so that apex
beat may be heard under or near
the right nipple. or so great as reply
whole side of chest. pressing the lung
backwards towards the spinal column
and mediastinum.

There are several kinds of Pleurisy
as acute Sub-acute and chronic
forms, with Interlobular and Diaph-
ragmatic. But I purpose to treat
only of the acute form. which
embraces the Subacute with the
Effusion of Serum mixed with fibrine

Symtoms.

The general signs of this disease are rigors, pain in the chest, cough, quick difficult breathing, fever, and pain on assuming certain positions. The most frequent of these and I might almost say the characteristic sign of the disease is pain in the side with or without chill. which is very severe and sharp as from the thrust of a sharp pointed instrument. and is known as "stitch" in the side. It is generaly confined to one spot and is usualy felt under mammary region.

Watson in his Excellent volume on Practice of Physic says "the pain is occasionaly felt in other places as in the shoulder in the hollow of the axilla beneath the clavicle and along the sternum when situated in mammary region it is generaly increased by pressure. cough

inspiration, or by lying on the affected side or by anything that tends to jar the patient. The cough is generally dry at first as in simple catarrh, afterwards attended with little frothy expectoration, and may remain so during the complaint or it may become more copious, as the bronchial tubes become more inflamed, the expectoration then becomes thicker and more tenacious. The breathing as the disease advances becomes difficult, because the lung is prest on by the effusion and the patient is unable to expand his lung to natural position, and the breathing is also more frequent, because less air is taken in at one inspiration. Therefore repetition must supply the deficiency and on this account we have both short and rapid breathing. The fever is sometimes high. The pulse becomes

full and frequent. The skin is hot and dry. with fured tongue. the appetite is not good, and may be lost entirely. The patient lies on his back, with head & shoulders elevated sometimes on sound side. The fever is generaly higher in the evening than during morning, but as disease advances the fever moderates.
So much for rational signs, The Physical signs need now be treated of. Soon after the disease has set in and during the pain, the sound which is so characteristic of disease may be heard on applying ear to side of chest; namely the friction sound, which is produced by the rubbing together of the inflamed pleurae but this sound is often heard in Pericarditis, but can always be distinguished by causing patient hold his breath. If pleurisy the sound will not be heard during

this suspension. but if friccardi's in-
sound still continues to be heard.
This friction sound only last for a
definite time. and must vanish
when the effusion has taken place
sufficient to separate the parietal
and visceral pleurae. During the first
of the disease the friction sound may
be detected by what is known as
palpation. gently laying the hand
on chest and during inspiration and
expiration a peculiar thrilling sens-
ation may be felt.
Inspection also affords us another
valuable sign of diagnosis. The dila-
tation is not natural. that of the
sound side is exaggerated. because
the effused liquid holds down the
spongy lung. the side that is not
fully dilated may be told by meas-
urement. pass a string around the chest
then double the string on itself. and
remeasuring both sides, and compare.

soon after the disease, while the effusion is small the respiratory murmur begins to be heard more faint than usual and as the effusion becomes more abundant it is heard the lip distinctly on diseased side and may be entirely lost. but on opposite side the sounds become louder, and it is at this period of the disease that the breathing becomes what is termed "puerile". after the respiratory murmur has disappeared on the diseased side, and the lower portion being empty of air the bronchial sounds are heard which Walshe describes as being "trembling, quivering cracked and discordant" to which Laennec has given the name of Aegophony from the two greek words aig a goat and phone the voice. i.e having the voice of a goat. but this bronchial sound is often also

and it may be difficult to destinguish it from the bronchial sounds of pneumonia.

Percussion. At first the dullness is observed in lower part of the chest and gradually rising as the disease advances or as the effusion increases. The sounds afforded by percussion becomes as that afforded by an elastic body such as muscles &c, and this dull flat sound may be over whole affected side when there is much effusion

The course of the disease depends often on the treatment. Some say if treated by depletion such as taking blood in the beginning of the disease it may be arrested before exudation takes place.

When the disease is slight and takes a favorable turn, it may be cured in six or seven days.

But instead of taking a favorable turn, the disease may continue to advance. the effusion still increasing until the whole side becomes dull on percussion. The patient being unable to lie on sound side, on account of the dispnoea. when the disease reaches this stage it will take two or three weeks or the disease may take on chronic form. should the disease terminate favorably, as it most always does when uncomplicated and of one side only, the fever, cough &c gradually disapear, and in like manner the physical signs. and the friction sounds may be heard one more as the pleurae come in contact. and the patient is begining to convalesce or convalescent. but the lung which has been pressed back and held down so long may be prevented from reexpanding by false membrane.

to its natural position. The lung is then said to "carnified" from its resemblance to flesh. Sometimes both sides are affected. when this is the case the pain is felt in both sides and the dyspnoea is greater than in sigle pleurisy, and we don't have the advantage of comparing the two sides. This form is called double pleurisy and is much more dangerous than single form

Complications. It may be complicated with Bronchitis or with Pneumonia.

Causes. The most frequent of these, and I might almost say the sole cause is cold. exposure of the body, especialy after becoming very warm and getting into state of perspiration and then Exposing themselves to suden cold, and for this reason we meet with the disease more-

frequently in male adults than in women. and if it is said on right side. because more engaged. as in chopping &c, There are other causes which produce the disease such as blows on chest. fracture of ribs Tubercle &c. The disease is common to all ages. but it is said that the robust & vigerous are more liable to have it than the thin & delicate
Diagnosis In this disease as well as in all others we should combine all the symtoms. in order that we may make clear diagnosis. namely both rational & Physical.
But the only disease it can be taken for is Pneumonia. In pleurisy the pain is sharp and severe. in pneumonia it is more moderate and more a dull pain only complicated with pleurisy In pneumonia we have the characteristic sputa of rusty colour

In pleurisy the cough is often dry, and when their is any expectoration, it is generally pothy as in Bronchitis or may be mucous. In pleurisy the flatness on percussion changes with movements of patient unless fluid held down by existence of false membrane, and this is not case in pneumonia, unless complicated with this disease.

Prognosis. Uncomplicated pleurisy of one side always gets well. It is usualy by being complicated with other diseases that pleurisy becomes a dangerous and often very obstinate disease.

Pleurisy is a more serious disease in the old, and those who are very feeble, than in the robust, because they are less able to stand it. When both sides are diseased it is a more serious complaint owing to the dyspnoea it occasions

Treatment

Simple pleurisy or pleurisy of one side. as I have before stated. when uncomplicated, always gets well and for this reason it becomes us not to interfear too officiously especialy when our patients are weak and feeble, and our treatment tends to weaken them more. Our object in the disease is to relieve pain. and assist in the promotion of the absorption of the ligeid. To relieve the pain or "stitch" in the side, is done by Lancet: as has been recomended by so many authors. but we should guard against taking blood unless our patient is plethoric and then should always be done in forming stage when inflamation has commenced and the blood vessels are engorged. It was once custom to take blood copious ly. but it has been found by

'experience that in simple acute pleurisy in nine cases out of ten it is unnecessary to carry blood-letting to such an extent. Should we take blood we should never bleed largely and should always be governed by condition of our patient. Local blood-letting may be imployed and often act well such as cups and leaches over seat of pain. When our patient is very weak we may use synapisms to relieve pain. and should these fail we should then use cups & leaches, after trying these remedies or means and finding the pain to still persist and there is fever we may then resort to more harsh means such as venesection, but moderately. The pain seldom lost or remains severe more than twenty-four hours, Poultices made of flaxseed or [illegible]

do much to mitigate the pain.
After depletion, the bowels should be evacuated by some purgative and should be kept open by some mild laxative saline laxatives very good.
After bowels been opened, opium combined with ipecacuhana or what is known as "Dovers powder" may be given at night in dose of 10 grs, causing patient to pass a quiet night.
It was once custom to give as purgative calomel combined with jalap but I believe it is not much relied on at present time, some of the more mild cathalics being used. Opium is very useful in the disease when properly used. It should not be caried so far as produce narcosis, but used merely to relieve pain which can be done without carying it so far as produce sleep.
It should be given in small doses just enough to keep patient

under the Effects of the drug and in this way is stimulant.
Epispastics such as cerate of cantharides over chest is of much importance and should be used, though they interfear with our examinations, but should never allow them draw through skin but should only be kept on until Epidermis pimples and redens and then some simple cerate spread over, and allowed to heal. Nitrate of Potash Squills and Iodide of potash are also highly recomended to promote the absorption of liquid, also Iodine rubed or painted on chest often does much to promote the absorption of the liquid. Should all these remedies fail and our patient from the presence of too much liquid, and the lungs are when their disease is on both sides preped back and the patients life is beginning to be despared

of, his life being thus placed in a state of jeopardy, and may die if effusion at any moment, unless his condition be discovered, and means taken to free him from an untimely grave. It is at this period of the disease, or when the disease becomes so grave that the operation of "Paracentisis Thoracis" or tapping the chest becomes advisable and this should always be the last resort; should this be practiced, the Trocar should be used between the 3rd-4th and 4th-5th ribs, and the fluid allowed to run out, until it comes close of its own accord. The diet of our patients in Planning should consist chiefly of farinaceous kind, with such fluids as milk, beef tea &c

The patient should by all means be kept at rest, and as disease advances towards cure, he should be

allowed whatever he can digest-
for it is not what we take in our
stomachs but what we digest. The
patient should be placed under
good hygienic influences. As soon as
they can walk they should take morning
exercise in open air, under such
treatment the patient is soon
restored to health and is once
more able to go out and attend
to his daily vocations or avocations
such as they may be.

An
Inaugeral Dissertation
on
Acute Pneumonia.

Submitted to the Examination
of the
Provost, Regents and Faculty of
Physic,
of the
University of Maryland,

for the
Degree of Doctor of Medicine.

By

Aubert, G. L, VanLear.
of Virginia.

Session of 1866–67.

Acute Pneumonia.

The name of pneumonia is now universally applied to inflammation of the spongy tissue or parenchyma of the lungs. There are numerous varieties of this disease, which are founded upon the different portions of the lungs, or the different constituents of any one portion, which may be inflamed, upon the relation of the disease to other diseases with which it may be associated, and upon the character of the accompanying fever or general state of the system.

The inflammation may occupy a considerable portion of the lungs continuously, embracing a whole lobe more or less, or even a whole lung. This is the common form of the disease, and the one usually meant, when the simple term pneumonia is employed. When the inflammation is continuous in a part or whole of one or more lobes, it is called lobar pneumonia, and when small insolated portions of the lungs are inflamed, as, for example, distinct lobules, or parts of lobules, with sound lung intervening,

it is denominated lobular pneumonia.
Though the inflammation is usually confined to one lung, it occasionally involves both, and in this case it is called double pneumonia.
The inflammation is said to have its seat sometimes in the cellular tissue intervening between the different air vesicles, or between the lobules, in which case it has been proposed by some to name it intervesicular, or interlobular pneumonia. Most generally, however, it occupies the whole of the constituents which form the pulmonary parenchyma, including the air cells, the bronchioles, the intervening cellular tissue, and the vascular ramifications.
The pleura is very frequently involved with the substance of the lungs; but when the inflammation is confined to that portion of the investing membrane which is in contact with the diseased pulmonary tissue, it does not receive a distinct title. But when large portions of the pleura are involved, it is termed pleuro pneumonia. This disease is frequently primary, but it is also frequently a mere accompaniment

of other diseases, in which case it is called secondary. When it assumes a low or typhous form, it is called typhoid pneumonia. Finally the disease may be acute or chronic.

Anatomical characters.— There are three well marked stages in acute pneumonia; viz. first that of congestion, second that of fully developed inflammation, and third that of suppuration. In the first stage, the affected portion of the lung is of a deep red color, and is heavier than in its healthy state; on section, the cut surfaces present a dark appearance, and the blood flows in abundance, together with serous liquid more or less frothy. The tissue is less tenacious than in health, and crepitates on pressure. It would not be easy to discriminate between hyperaemia arising from inflammation, and that due to hypostatic congestion. But the latter affects the portions which are dependent and is not limited to one lung, whereas, the former is confined to one side and not always limited to the position into which the blood would accumulate

by gravitation. So long as no change beyond congestion has occured, the air cells contain air, and, after removal of the blood by maceration and pressure, the pulmonary structure is found to be intact. This condition lasts but a short period. Exudation speedily follows, and the disease passes into the second stage. A coagulating material escapes from the blood and coagulates within the air cells. The cells are filled and distended with the exuded matter. They cease to contain air. The lung is solidified, presenting an appearance not unlike that of the liver, and hence this condition has been called hepatization. The substance of the lung is softened or more friable. Its weight is much increased, which is due, not to an accumulation of blood, which is less than in health, but to the amount of solid matter withdrawn from the blood. Examined with the microscope the substance blocking up the air-cells is

found to be composed of molecular matter which is probably lymph in a granular form, epithelium, fatty granules, some blood disks and leucocytes.

If the progress of the disease be favourable, the exudation is removed mainly by absorption. It is sometimes absorbed with great rapidity. After its removal, the air-cells are found to have sustained no damage. If the progress of the disease be unfavourable it passes into the third stage, which is that of suppuration. The affected lobe or lobes are infiltrated with pus. This condition is called purulent infiltration. The lung presents a grayish appearance. The substance is much softened, breaking down on slight pressure. Occasionally, collections of pus take place, forming pulmonary abscess; but this, as well as gangrene seldom occurs.

Clinical History.— The division of the career of acute pneumonia into stages, is based upon differences as regards the anatomical characters at different periods of the disease. The duration of each of these stages, varies much in different cases. The stage of engorgement

may last but a few hours. Dr Flint says, he has known an entire lobe to be solidified by two pounds of exudation matter, as determined after death, in less than twelve hours. Not unfrequently this stage does not last beyond twenty four hours. The stage of solidification may also be of short duration. But in the majority of cases this stage is from twenty four to forty eight hours in duration. But in some cases it may last from two to four days, before it is evident that resolution has commenced. Resolution is still more variable. It is very rarely the case that the resolution is completed in less than three or four days, and generally eight or ten days are required. In some cases two or three weeks elapse before the air-cells are restored to their normal condition, and sometimes the resolving process is even more protracted. If the disease pass into the purulent stage, death usually take place within a few days; but the disease may end in recovery, in that case, many days and perhaps weeks elapse before the normal condition

is restored. Acute pneumonia is generally ushered in with a chill, frequently accompanied with rigors, followed by febrile reaction, difficult breathing, cough, and severe pain in the side or back part of the chest. The invasion is usually abrupt, with few or no premonitions. Sometimes the fever and local symptoms occur without an antecedent chill. Occasionally the characteristic symptoms of the disease are preceded for some days by general uneasiness, lassitude, loss of appetite, and more or less fever. The pain may either precede, accompany, or follow the commencement of the fever. It is frequently severe, and, as a rule, the intensity of the pain is in proportion to the amount of coexisting pleuritis, but sometimes there is little or no pain. The pain is usually confined to a circumscribed space at or near the nipple of the affected side. The respirations are nearly always increased in frequency, they may be increased from about eighteen in a minute, the normal standard in health, to thirty, forty, fifty, or even sixty.

This may depend on the pleuritic pain if it be marked, and, also, on the interruption of the function of haematosis in the portion of lung affected. Cough, is sometimes entirely wanting in the commencement, but is generally present, to a greater or less degree through the whole course of the disease. It is in some cases violent and painful, in others moderate and with little or no pain. At first it is usually dry, or attended with only a little mucus expectoration, if the disease is uncomplicated. But very soon, often in a day or two, a viscid semi-transparent, matter is expectorated, which either is in the begining or very soon becomes stained more or less with blood, so as to have a rusty color, sometimes inclining to yellow or green, according to the amount of blood present. As the disease advances, these properties of the sputa become more marked. The tenacity is so great that the matter adheres to the vessel containing it, when this is turned bottom upward. This viscid and rusty colored expectoration, is probably the most characteristic general

sign of pneumonia, and sometimes indicates its existence even when the physical signs fail. But the rusty colored expectoration is by no means uniformally present. Sometimes it is semi-transparent and adhesive without the reddish tint.

Fever is an almost uniform accompaniment of severe cases. It varies extremely in degree, being sometimes so mild as almost to escape notice, and sometimes to the highest degree intense. It is very often attended with flushed cheeks, and pain in the head, especially about the brows, or forhead. Delirium now and then occurs, and is usually an unfavorable sign. The fever often has a remittent character, the exacerbations occurring daily, generally towards evening. The pulse varies much in frequency in different cases, ranging from eighty to one hundred and twenty, and is more or less full and hard. The skin is usually hot and dry, though occasionally moist. The urine is generally scanty and high colored. Thirst and loss of appetite is almost universal.

The tongue is generally moist, and coated with a white or yellowish white fur; but it is sometimes clammy, or dry and red. The thermometer in the axilla indicates more or less increase of heat, the increase, in mild cases, not exceeding 102° F.; an increase above this amount always denotes great severity of the disease. A sudden increase of temperature denotes invasion of a new lobe or some intercurrent affection. All these symptoms, vary more or less in different cases, according to the extent and severity of the disease, in its different stages and complications.

Diagnosis.— The physical signs are of the highest importance in diagnosis of pneumonia. The disease is often very obscure; and, without the aid of the physical signs made known by the processes of percussion, and auscultation, many cases might run their whole course quite unsuspected. In the first stage, or that of congestion, there is slight dullness on percussion, and diminished respiratory murmer; but very soon the characteristic crepitant

rhoncus is perceived, especially if there is a rusty sputum. Sometimes it is not heard except on deep inspiration. On the other parts of the chest, the respiration is puerile. The crepitant rhoncus is caused by the seperation of the adherent walls of the vesicles in inspiration, and resembles the sound caused by rubing a lock of hair between the finger and thumb close to the ear. This sound indicates engorgement of the lung; whilst it exists, it is a proof that in several points at least, the inflammation has not passed the first stage.

As long as the natural respiratory murmer predominates over the crepitation, we should infer that the inflammation is slight, on the other hand, when the crepitation prevails so as to altogether mask the respiratory murmer, it is a certain indication that the pneumonia has made progress, and that it has a tendency to pass to the — Second Stage.

These phenomina soon change, either by the resolution of the disease, or by it making further progress. In the former case, the

crepitation diminishes in extent and intensity; the murmur of respiration approaches its natural state; the sound of the chest becomes less dull, and its movements more regular.

When the solidification has become sufficient in degree, and has extended sufficiently over the affected lobe to furnish signs of that condition, the diagnosis, if it has not been ~~studdy~~ made, is rendered clear by the presence of these signs. Bronchial respiration, bronchophony, and whispering bronchophony, are the signs denoting the condition of solidification.

They are first manifested over a limited portion of the affected lobe, and are thence diffused over its whole extent, either quickly or gradually, according to the rapidity or slowness whith which the whole lobe becomes solidified. The progress of the second stage may be determined by the diffusion of these signs. Dulness on percussion is now marked, amounting, perhaps, nearly or quite to flatness. This dulness or flatness extends over a space corresponding to

that occupied by the solidified lobe.
The crepitant rale, if it have existed in the first stage, may continue, more or less diminished, during the second stage, or it may disappear after the affected side has become solidified. The moist and dry bronchial rales are liable to be heard in this stage. The commencement of resolution and its progress from day to day, are shown by modifications of the signs denoting solidification. If the disease pass into the stage of suppuration, the dulness or flatness on percussion continues, and the moist bronchial rales, due to pus in the air tubes, are prominent. The auscultory signs of solidification continue, but are less marked. "When an abscess forms in a hepatized lung, the passage of air through the liquid will be indicated by the gurgling or cavernous rhonchus; and when the cavity has been emptied of the pus by expectoration, pectoriloquy, and the cavernous respiration will be added to this sign. Pneumonia may terminate in gangrene, but very rarely. The distinctive

physical sign of gangreene is the fœtid odour emitted from the diseased part in respiration and cough and the expectorated matter is extremely fœtid. This change is usually attended by a collapse of the features and great prostration of the vital powers. The diseases with which pneumonia is most liable to be confounded is bronchitis, pulmonary oedema, pleurisy, and certain states of phthisis. But with due attention to the physical signs, afforded by each disease, we may generally make a correct diagnosis.

Prognosis.— The prognosis, in cases of pneumonia will depend on the extent of lung involved, the disease with which it may be connected as an intercurrent affection, and the previous constitution of the patient &c. Occuring as a primary disease, limited to a lower-lobe, remaining uncomplicated, and the person affected having a fair constitution, the tendency is to recovery; indeed, recovery is said, not only to be the rule, but the exceptions are exceedingly infrequent;

The gravity and danger of this disease, proceed not so much from the disease it self, as, from coexisting affections and from other incidental circumstances. Developed in the course of continued fever, measles, or other diseases, it may lead to a fatal termination. In aged and feeble persons it may end fatally without any complications, especially if more than a single lobe be affected. The complications which are apt to render it fatal are, organic diseases of heart, pericarditis, intermittent fever, and delirium tremens. But even with these complications, recovery takes place in a certain proportion of cases. The gravity and danger from these complications are in proportion to the extent of the inflammation, as when it invades more than a single lobe. There is a liability, in the course of this disease to a fatal accident, which is apt to occur in cases in which an entire lung becomes involved, or in cases of double pneumonia. Reference is had to the coagulation of fibrin in the right cavities of the heart, which has

been regarded by some, to be an event of not unfrequent occurrence in fatal cases of pneumonia. This accident is supposed to be due to, the obstruction to the passage of the blood through the lungs, caused by the presence of the exudation, which involves an over accumulation of blood in the right cavities of the heart. The right ventricle and auricle are enfeebled by distention, and this condition, in conjunction with the increase of fibrin in the blood leads to coagulation.

Causes.—Statistics show that no period of life involves either a notable proclivity to or exemption from acute, lobar pneumonia. But perhaps the period of life at which it is most frequent is from Twenty to Thirty five, when the body has attained its full height but is still spreading laterally. Cases occur much oftener among males than females, owing to their occupations, which expose them more generally to the vicissitudes of the weather. Of the predisposing causes, Cold may be ranked among the most efficient. Sudden exposure to cold, when the body is warm and perspiring, is very apt to induce it.

This is especially the case, when the individual exposed is labouring under a catarrhal attack. Various diseases are apt to be accompanied with pneumonia, and are thought to favor its production, as typhus and typhoid fever, rubeola, small pox, scarlatina, and probably pustulus and erisipelas. Sometimes it follows accidental injuries, or surgical operations of a severe character, acrid or poisonous inhalation, and excesses in drinking.

Treatment.— In no disease is it more important to make a proper discrimination in the treatment. This should be accommodated to the various stages of the disease, and its complications with other diseases. The measures which are salutary and even essential under certain circumstances, are injurious and may be fatal under others. The question whether the disease may be arrested, relates to the first stage. In the first stage in a young, vigorous, and plethoric person, with a high febrile movement, quick strong pulse, we may cautiously use general

bleeding once. In cases of less vigor we may use wet cupping. But cases requiring general bleeding are very rare. It is contraindicated whenever the febrile movement is not marked, the pulse denoting activity without power, and the patient anaemic or having a feeble constitution. In most of the cases in which it would be admisable, provided the same ends could be secured by other means, the latter are to be prefered. These consist of depletion by saline purgatives, and sedative remedies. After the operation of a saline purgative, if the skin be hot and the pulse frequent, tartar emetic may be given in small doses, or the tincture of veratrum viride may be given in doses of four or five drops, taking care not to depress the system too much. These remedies are not to be given, unlss, the symptoms be urgent. They are contraindicated by feebleness or a tendency to depression. Opium may also be given in this stage, in doses sufficient to relieve the pain and tranquilize the system.

Opium may sometimes be given in the form of dovers Powder, in doses of eight or ten grains, for its diaphonetic effect, as well as to relieve the pain at the same time. Dry cups, warm fomentations, Stimulating liniments, and Sinapisms may be used. The treatment in the second Stage, should be the use of those means by which we may palliate the Symptoms, support the System, and promote resolution. Tincture of iodine may be applied over the hepatized lung, the repeated applications of which, will sometimes secure a sufficient amount of counter-irritation. If not, we may use blisters, if counter irritation be dissirable. If pain or soreness continue in this Stage, warm fomentations or Stimulating liniments may still be continued. Cover the chest with an old Muslin jacket, over which flannel may be worn. Opium should still be continued, to allay pain, and tranquillize the patient, if there is restlessness or want of sleep. The supporting treatment should

now be adopted. It consists in the judicious employment of tonics, alcoholic stimulants, and a nutritious diet. The great object is to husband, and support the strength of the patient, until absorption has been completed. The indication for supporting measures, as regards urgency, varies much in different cases. It is urgent in proportion to the danger from asthenia. We should not defer the supporting measures until the symptoms denote imminent danger from failure of the powers of life. Of the tonic remedies, quinia is to be preferred, especially, if the pneumonia be associated with intermittent fever. It should then be given promptly, in doses sufficient to arrest the paroxysms as speedily as posible. If the disease proceed to the suppurative Stage, the persevering employment of the supporting measures, in proportion to the exigencies of case, should be our main reliance. Throughout the whole course of this disease, it is very essential, that the apartment should be well ventilated, so as to afford pure air; and a proper temperature, should also, be maintained.

AN

Inaugural Dissertation

ON

Syphilis

SUBMITTED TO THE EXAMINATION

of the

Provost, Regents and Faculty

of

PHYSIC,

of the

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

Doctor of Medicine,

by

James L. Powell

of

Richmond Virginia

Session 5 6th 1866 67

As the infant disciples of Aesculapius
grasps his styles to answer to requirements
the successful fulfilment of which
marks a most important epoch in the
history of his life by placing him in
the ranks of a vast fraternity whose great
& noble aim it is to administer to the
sufferings of Humanity - upon the very
threshold of his task he sees so much of
the intricate before him, such vast fields
of hidden knowledge, so bewildered is
he by the ocean of labyrinths before him,
each one of which displays new beauty
as the light of Science displays the
chaos which enclosed it, so thoroughly
is he awakened to his littleness, his
ignorance & his incapacity & seeks

this task, that he is almost discouraged from making a single stroke with his pen, but is ready under a fit of desperation & despair to abandon his project entirely — The pauses in his bewilderment. Influenced by hope that incentive to all human actions, an innate principle which Pandora in the distribution of her evils through the land bequeathed as a last legacy to man, he casts about from point to point, endeavoring to find a fulcrum upon which to place the leverage of his mind.

The surveys as far as his fuller intellectual vision will permit the whole field of nature; he looks into the immense vista of space; he observes the diurnal & annual evolution of the

Planets in the systematic order — As he contemplates these & other works of divine wisdom & power, a vast Panorama viewed from an oasis in 'mid Ether, his imagination is bewildered & he scarcely knows what he is, where he is, whence he come, where he is going, or for what these mighty wonders exhibits of Divinity were produced, but when he reverts to that first specimen of supreme workmanship & considers its mechanism, its attributes, the grand climacteric of his bewilderment is reached ~~& he~~. All things else appear clear & he stands in the profound dist amazement & exclaims —
"How complicate, how wonderful is Man"
One of the most renowned of modern poets as he found language to express

the beautiful ideas & thoughts begotten of
his imagination by the contemplation
of Nature in her every aspect, when
arriving at this subject, finding himself
unable to penetrate into the mysteries
of this product of Creation, could do
no more than express his inability to
proceed in the above passage.
That then which has proven the Pons Asinorum
of the Poet & Philosopher, & which the
Metaphysician has exhausted his
speculations upon, becomes the Arena in
wh: those of the medical profession are
to be actors. 'Tis theirs to search into
those unexplored regions of Truth &
enable man in compliance with divine
behests to know himself — They behold
Truth in her most beautiful garb

& by the train of their investigations
~~work~~ most naturally leads them are
brought to the contemplation of that first
great Source of all things, their God:
for what is Truth but Nature & what
is Nature but God - It is their
province to understand the Physiological
working of the human economy, the laws
of supply & waste, the phenomena of the
circulatory & nervous apparatus, the
processes of digestion & respiration, the
relation between mind & body, the
Material & the immaterial being, the
constituents & function of every cell &
globule, in order that in a condition
of vision they may be the better enabled
to merit for themselves the appellation of
those divine Men, who heal the wounds

of mortals, given by Homer to the physician of Ithica. But Alas! what does our enthusiasm lead us to? The experience of all wise men has been, that after having passed the allotted period of life, the height of their wisdom has been to come to appreciate how little they did know, to feel after the language of Newton, so beautifully quoted in his opening lecture by one of those bright stars wh: exists to disseminate light from the galaxy of wh: it is a member, that they were but children gathering pebbles upon the shores of the boundless Ocean. Even in the multiplicity of subjects wh: present themselves for a thesis I sadly feel my inability to do justice to ~~deal~~ with a single one

& as I attempt to treat of any portion of that organization as regards either mechanism or attribute or any of those terrible maladies to which those who have given themselves up to the pleasures of the body & have made themselves its slaves, obeying the impulses of lust & self gratification are liable, the fullings of fear & diffidence are as great in me as are those of dogmatism & self reliance in many who attempt to explain all the phenomena, both Physiological & Pathological associated with its being. It can not be expected of me to bring forward a single original idea upon any portion of a subject which from the days of St. Luke & Alexander the Great to the present moment, has been puzzling the understanding of the most learned & which still seems to be wrapt up in an unfathomable

ation of obscurity as regards many important features. Like Cicero gathering his ideas of Phylosophy from the ancient lore of Greece, Asia & Egypt wh: he naturalized into Roman Literature. I can as yet only put together such rays of light as are reflected to me from the greater luminaries — In presenting a subject, "Syphilis", which first began to agitate the mind of the Medical world about the latter part of the 15th century ~~it~~ I shall condense from the views of Record, to whom we are indebted for many valuable hints upon its causes, stages & treatment.

Primary Syphilis consists of a specific ulceration, always produced by inoculation direct or indirect, developing a specific pus wh: produces by inoculation the same kind

of ulcer as that from which it was itself derived — These ~~Chancres~~ ulcers are called Chancres of wh: there are two kinds & appear to be specifically distinct in their character. Both reproduce their like but one is a purely local affection & does not contaminate the system, simple or non-infecting chancre, whilst the other unless rapidly cured, almost always infects the system & gives rise to constitutional symptoms.

The simple or non-indurated variety is marked by the natural softness of the tissues in which it is imbedded, by the edges being cut perpendicularly as though done by a hollow cylindrical drill & by the barbed & worm eaten appearance of its surface, wh: is covered over by a tenacious pseudomembranous lymph, by its great sensitiveness & by its

suppurating character — When we are deprived of the ordinary signs & there exists a question of doubt as regards the true character of an ulcer the only true proof of its nature is obtained by the process of inoculation & this species can be tested in this manner until almost brought to the point of perfect cure. This variety often becomes phagedaine. The soft chancre may be developed on any portion of the body except the head. When taken it is entirely traumatic & mechanical & has no relation to the phenomenon of sexual intercourse — The Bubos which result may be simple inflammation of the glands or the inflammation may take on a specific character by absorption, in wh: latter case the Bubo always suppurates, exhibiting a contagious pus, & when opened

leaves an ulcer wh: often becomes phaedaenic or gangrenous, a case of which has been under very protracted treatment since my stay in the College Hospital — one Joseph Murphy a sailor, — but which by the application of Nitric Acid, the usual resort ~~for~~ in such cases, was finally arrested in its destructive progress. — This case however was complicated with Gonorrhoea, the patient having first lotten this disease by foul intercourse & then contracting the Soft Chancre.

Treatment "consists in converting the ~~simple~~ specific ulcer into a simple one by effective cauterization, as with Acid Sulphuric made into a paste with powdered vegetable charcoal — It forms a black crust which adheres to the tissues many days & often

destroys the specific nature of the chancre in one single application — "The usual application however, wh: I have seen used is the Acid Nitric which seems to remove the ulcer as rapidly as is to be desired. — Black wash — dilute Nitric Solution, Sod: Chloride Soda &c have been recommended The opinions of Authorities are marked by a shadow of difference as regards the treatment of this disease & of course it is not for me with my limited experience only what I have obtained in this building since August 1st; — to say what is best — The local application most adhered to by the Surgeons in charge is the Bichloride wash & may be used internally also in strength of gr 1/6 ad ℥i. My attention has also been particularly called to a youth who applied for bed

surgical relief, soon after infection with a soft chancre. The disease was entirely local, the prepuce, it being so much inflamed & swollen as at first not to exhibit its true nature — By application of Flax-seed poultices & injection of the Bicloride: the ~~inflammation~~ the inflammation has been almost entirely relieved & the patient is doing well. The internal treatment consisted of Ferri et Potass Tart: & no constitutional symptoms presented during the whole time of his sojourn here. The Thunderiad ~~or~~, Hard Chancre, ~~or~~ Infecting Chancre, all synonimous terms often escapes notice in its incipient stage & may be altogether overlooked. Its effects upon the system begin contemporaneously with the act of inoculation

It is circular like the Simple Chancre, but is known by its greater hardness, whence one of its synonims + "the ulcer feels like a little cup of cartilage set in the flesh" by its surface being smoother more polished + shiny. The borders are not perpendicular as in soft chancre but slope towards the centre + adhere to the base — About the 5th day &c, prior to which time it may be cured by local cauterization, the induration is perceptible + in two weeks is complete — The Indurated Chancre is generally small, seldom becomes Phagedaenic, but may become so + is then fearful — The Bubo resulting therefrom seldom inflames or suppurates — This variety much less frequently met with than the soft + when it takes on the ~~hard~~ ~~Hotter~~ Phagedaena the hard induration is

characteristics is destroyed & this fact produces a difficulty of nothing a differential diagnosis, in which case we are left to rely entirely upon the history of the case - Though the Treatment is much less severe in its local effects than the simple, in its terrible influence upon the system it makes up for its lack of virulence in the other particulars. The signs of Constitutional Syphilis which themselves in about 6 weeks from the date of inoculation, but may not do so within 6 mos: or as early as 3 weeks. Secondary or Constitutional Syphilis not inoculable, but may be communicated from husband to wife through the medium of the Foetus in Utero, but of course can be communicated from wife to husband. Tertiary, not contagious

nor is it transmissible as the Secondary, but parents so affected, being unhealthy cachectic children & it is one of the most potent causes of premature birth — I will be bold enough to assert that when the system is once contaminated, with Constitutional Syphilis, I do not believe the prison can ever be entirely eliminated —

Treatment — Before induration is perceptible this chancre may be destroyed by cauterization, after which Hydrg: is the proper treatment, "is most imperatively required; a full & continued course should be administered & the influence of the mineral should be ~~administered~~ kept up until all hardness has disappeared; unless this be done the patient will almost to a certainty suffer early & severely from Secondary Symptoms"

Ricord, to shew how the best authorities differ says, that for ~~the~~ Primary & Secondary Syphilis Mercury is absolutely injurious, & I do not see why such should not be the case, unless we admit that it is as absolute an antidote against the ~~primary~~ virus of this disease as Quinia is against the malarial poison of Intermittent Fever. When the system is broken down from any cause & we know Hydrg: to be as powerful spaneemic as any article of the Materia Medica, it is much ~~more less~~ less able to resist any of the noxious influences, to wh: it is exposed. We are but the hand maids of Nature & by supporting her is she enabled to throw off the seeds of disease — Why then should we use it so extensively —? But not wishing to branch off upon the virtues of the

"Vis Medicatrix Naturae" draws renewed [illegible] subject. It has so far been my aim to make a clear & intelligible diagnosis between Hard & Soft Chancre which I consider as Syphilis proper. The other varieties wh: have been spoken of by authors appear to me to be but stages or mere modifications of these two. Erichsen says of the Phagedenic Chancre it may assume the Phagedenic character from the very first, or this may be set up in one of the other varieties at some period of their course & Druitt treats of Sloughing Chancre under the head of Hospital Gangrene - The can only ~~[illegible]~~ allude to their treatment which for the first is recommended by one of the Authors already alluded to, consists of Opiate lotions with small quantities of the Chloride of Soda is

which a small amt: of Acid Nitric may be added when the parts require more active stimulation — In the other emollient & antiseptic applications are advised — Primary Syphilis has been circumscribed & limited both locally & constitutionally — Let us now turn our attention to its Secondary & Tertiary & our first inquiry would most naturally be to ascertain the import of these terms — They both signify that condition of the patient which exists when the whole system has been contaminated by absorption of the poisonous matter from a chancre, the first or secondary exhibiting itself by affection of the skin & mucous membranes, tenderness & swelling of the post-cervical glands Rheumatic pains &c, whilst the other Tertiary, affects the tissues more deeply

producing swelling of the bones, Caries, Necrosis &c. Amidst the great diversity of opinions as regards the treatment in these cases it is difficult to settle positively upon any one. It will be necessary just here to revert to Mercury again which is regarded by some as a Specific of ~~poison a specific~~ if there is such a thing in any disease, but there may be cases as in a broken condition of the system, a Rheumatic or Scrofulous Diathesis, or some idiosyncrasy wh: contraindicates its use. The Potass: Iod: & the Ferri: Iod: Syr: are used to give a healthy character to the blood & its eliminatives whilst the patient should be supported by paying due regard to his diet. — Though the field wh: I have entered is a most extensive

me, & would afford material for adhering my views, borrowed from others in great part, are brief & should they but answer the requirements of the "Green Room" will reach my most sanguine expectations — In future years when with the published views of the leaved men of the profession I can compare the result of my experience, observation & study I indulge the hope that I may be capable of blotting out the deficiencies which occur here. My sole object has been to express as clearly & succinctly as possible what knowledge I possess in regard to this Zymotic disease as derived from others — I cannot close this feeble effort without expressing my profound thanks to Dr. Cabell the able Prof: of Physiology & Surgery at the University of Virginia for many hints upon my present

dissertation — The boasts of the University of Maryland as his Alma Mater & I trust are long that the name of the present humble essayist may be added to the number of those who have gone away from this institution with their brows wreathed with laurels & their minds stored with such rich fruits of knowledge as are alone to be obtained by drinking of the waters of this modern Pyrenian Spring With such men to instruct I might say of the southern student in the beautiful & expressive language of Young

Here he to live coeval with the Sun,
The patriarch pupil would be learning still;
Yet dying leave his lesson half unlearnt —

Impressed with the fact that by perseverance & diligence alone can one

attain to eminence in any science I shall enter upon the field of my profession carrying with me ~~the~~ as the motto of my life "Nulla palma sine pulvere" — May each succeeding year add to the halo of glory which already radiates from the schools of Baltimore.

Respectfully submitted by
James L. Powell.
of
Richmond
Virginia

AN

Inaugural Dissertation

ON

Diagnosis

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

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By

[illegible]

York Pennsylvania

Session of [illegible]

Chronicles

inor a diacwi. Indeed the
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iou com to the ind. and
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of which we [illegible] the stat, in-
asmuch as [illegible] of these [illegible]
in consequence of the [illegible]
of the science we are proud to
call the [illegible].

As yet it is true we [illegible] not
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so that the real disease is not
known until the [illegible] and
microscope [illegible] its [illegible]
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the [illegible] the result of disease.

action. Idiopathic fever for example, may proceed to a fatal termination, and leave no trace of visceral obstruction or organic change, or transformation.

And so of many other diseases especially that class recognized as narcotic diseases. Hysteria, Chorea, epilepsy, hydrophobia and many others of this class are only known to have existed in a knowledge of the symptoms exhibited during life. So microscopic anatomy so much as to recognize the morbid changes affected in these terrible and fatal maladies. But, while there are thus many human ills of which we have less knowledge than is desirable, there are others the nature and causes of which we better understand. For we are not only able to ascertain the

all other [illegible], [illegible] those included in the other two classes, [illegible] [illegible] [illegible] [illegible] [illegible].

[illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] of the [illegible] [illegible] [illegible] [illegible]. The peculiar pustule [illegible] in the [illegible] [illegible] [illegible] is said to be [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] of [illegible], and [illegible] [illegible] [illegible] of the disease, [illegible] diabetes mellitus, [illegible] [illegible] [illegible] of this kind. But [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the other diseases.

We will now look upon the symptoms [illegible] [illegible] [illegible] [illegible] in this connection [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] one. It has been sup-
posed to be caused by the malfor-
mation [illegible]
of the [illegible]. It is [illegible]
also due to some obstruction in
the circulation of the right side
of the heart; therefore, many of
adult cases this is [illegible] found
to be but an exception to the gen-
eral rule.

The idiosyncrasy [illegible]
peculiarities; one person may be
affected [illegible]
in [illegible] other would produce
[illegible]. Thus shell fish, bitter
almonds, &c. produce urticaria
in some [illegible] the idi-
osyncrasy [illegible]
of [illegible]. [illegible]
will [illegible]
[illegible]
will be thrown into convulsions by
the smallest dose; again

the [illegible] in [illegible] can be [illegible] act [illegible] to some person [illegible] and [illegible] unadapted.

All this [illegible] diagnostically in the [illegible], in the [illegible], [illegible] of [illegible]. [illegible] to [illegible] a patient [illegible] and still keep him in the [illegible] of the [illegible] which was its cause, [illegible] would [illegible] again. So [illegible] treat a patient [illegible] all [illegible] accomplish [illegible] as the cause remained [illegible] continued.

Hereditary predisposition should be particularly [illegible] in [illegible] a diagnosis of disease. The fact is familiar and [illegible] that disease [illegible] or [illegible] condition. [illegible]

peculiarities or habits connected [with] diet; certain occupations, likes and dislikes, sympathies and antipathies. The tone of mind subject to moderation, the [illegible] of condition of studies, sympathies and [illegible] [illegible] the [illegible] of [illegible] habits, and modes of life. All these should be carefully borne in mind, and particularly investigated in all diseases of a chronic character, in which [illegible] the cause of the disease itself, is [illegible] obscure.

Among the various symptoms by which we recognize disease pain is perhaps the most universal, a careful observation of which will often aid us [illegible] to the situation of a diseased organ. [illegible] in contrast [illegible] other [illegible]

which we must not expect as from infants deaf-mutes and the like, to gain information from the subject in the ordinary way. Here Physiology offers us her valuable aid, and in due inquiry into her several functions ascertains for us the organs engaged in their performance.

We have now briefly and imperfectly detailed the most important phenomena and their importance in forming a correct diagnosis and although as intelligent Physicians we are bound to pay most attention to rational and scientific inquiry; empirical diagnosis still holds an important place.

Our reading and experience will afford us numer-

one examples of phenomena found to indicate conditions the relevancy of which is unknown or imperfectly understood. An elaborate research must be made into the sympathetic relations which connect and controll the whole organism, guided by the careful employment of the record of our own or others experience. We thus learn many things as facts in the present state of our science which we cannot explain, or account for.

We do not understand for example why the pulse at the wrist should be small and contracted while the mucous membrane of the stomach and intestines is inflamed. But full and bounding when the same membrane of the —

respiratory tube is in similar condition. Yet we read of this difference of the pulse of bronchitis being observed from time immemorial.

Neither is it clear to us why thoracic haemorrhage should be attended with a quick frequent pulse and cerebral haemorrhage by a slow full one. or why the pulse should intermit in some cases of hydrothorax and hepatitis and in other cases of the same affection should not exhibit such intermission. or why the dyspeptic has sometimes the sense of fullness and at other times of hollowness in the epigastric region. Thus we might enumerate examples almost ad infinitum but those already given above will suffice to show

the great importance of erudition in forming a correct diagnosis.

Finally:—

Diagnosis is far too important a subject to be exhausted in the narrow limits of any single essay. Volumes, indeed might be written, and still leave much unsaid: but the few remarks above written will still suffice to indicate some degree of appreciation of the magnitude of the subject.

It is in fact a matter of daily consideration of all physicians, in which honorable body the writer humbly hopes he may soon be enrolled.

Respectfully Submitted.

W. F. Lewis

AN

Inaugural Dissertation

ON

Digestion

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

W. G. Pettus

Of

Richmond Texas

Session of 1866, & 1867

Digestion

We have now a clear understanding of the process of digestion: the false opinions of Galen; the fermentation theory that superceded these, and the other erroneous views propagated by various authors previous to the time of Beaumont, have all vanished before the clear, bright light of truth as shown in a great measure by Beaumont, who experimented upon the stomach of Alexis St. Martin, (who but for his seeming misfortune, would have died as unknown and unheard of as he had lived, an humble boatman of the St. Lawrence).

Since that time (these investigations bringing to light the action of the gastric juice) inquiry has been busy, science has lent

our ablest and most learned sons to the task, until we have had all the various parts of the complex apparatus of the vital laboratory (the alimentary canal and its appendages) under consideration, have experimented upon the various secreting organs connected with the alimentary canal, and now understand their various eliminative and absorbing powers; each contributing its part in turn, until we have the harmonious whole.

I propose in this short thesis in an humble manner to review in order the various processes as received and believed today, remembering however the words of a learned member of the Profession "the truth of today may be the error of tomorrow" We will hold ourselves in readiness to

examine every new light upon the subject and to receive or condemn such information upon its truth or falsity.

Of the subordinate processes of Digestion the first I will notice is the manifestation of the appetites of Hunger & Thirst. The sensation of hunger is invariably referred to the stomach, but really has not its seat in this organ; this is proved by the following experiments: if we inject food into the veins of an animal it satisfies the appetite of hunger as fully and determinately as if taken by the ordinary channel. Hunger is the cry of nature to supply and repair the waste of the tissues. To supply its constant demands is the object of our very existence; so irresistible is the desire to gratify this appetite human beings have been

all feelings of humanity as to suck the life-blood of their own offspring) The pneumogastric nerves were formerly thought to be the nerves of transmission of this sensation; but it has been proved by experiment, that horses eat after three inches of these nerves have been removed.

This sensation is produced in the stomach by some inappreciable alteration in the nerves of the organ through sympathy with the demands of the system.

In like manner the want of the system for water, Thirst: has its local declaration in the upper part of the alimentary canal, viz. in the fauces and oesophagus; the cause of this systemic want being caused by waste of fluid by means of exhalation & the excretions.

The next subordinate process to be treated of is Prehension, by which we mean the

Seizure of the food by our hands, its conveyance to the mouth, and its seizure by our lips and teeth.

The next process to which the food is subjected is Mastication, which is the trituration or breaking up of the food; this is accomplished by the teeth, which vary according to the food upon which the animal lives: in the human subject consisting of four incisors, six molars, four bicuspid & two canine; while the horse, cow, and other herbivorous animals, have no canine teeth, but an additional number of incisors.

The next subordinate process in Digestion is Insalivation, which is the mixture of the food with the Saliva of the mouth.

There are four different Salivary glands in the mouth each secreting Saliva of a different consistency; the hardest Saliva which can be

obtained pure by inserting a cannula into Steno's duct, is a colorless, limpid, watery secretion, without viscidity; and has a slightly alkaline reaction. The submaxillary saliva, obtained by inserting a cannula into Wharton's duct, differs from the parotid in being extremely viscid. The sublingual saliva is alkaline, translucent, and somewhat more viscid than submaxillary. The secretion of the mucous follicles is still more viscid and very scanty. The mixed saliva is a viscid, colorless, slightly alkaline fluid, with a specific gravity of 1006; and is composed of water, organic matter, sulphocyanide of potassium, phosphates of soda, & lime, & magnesia, chlorides of sodium, & potassium, and a mixture of epithelium. The organic substance of saliva is ptyalin, which has the property of converting starch into dextrine & glucose.

The amount of saliva secreted daily varies with the quality of the food, thus wheaten bread gains, during complete mastication, 55 per cent of its weight of saliva, and freshly cooked meat gains 48 per cent. The average quantity secreted in 24 hours has been estimated, by accurate & scientific investigators, to be little less than three pounds (Avoirdupois).

The next process to be treated of is that of Gustation, by which we mean the tasting of the food, or the impression made upon the gustatory ganglion by the influence conveyed through the gustatory nerves.

The food is next subjected to the process of Deglutition: this is commenced by the muscles of the tongue and mouth contracting, and carrying the food into the fauces, which is further

voluntary act; it is now taken up by the involuntary muscles of the [illegible] [illegible] pharynx; and conveyed to the oesophagus.

To fully comprehend the part the oesophagus takes in digestion, it is necessary to go into the physiological anatomy of the oesophagus: it has three coats, an external (Cellular), a middle (Muscular), and an internal (Mucous); the Middle (Muscular) coat, consisting of two sets of fibres, longitudinal, & circular, is the only coat of especial interest to the physiologist: it being by the alternate contraction and relaxation of these longitudinal and circular fibres that the food is carried to the stomach, where it is subjected to the action of the stomach (or undergoes Stomach digestion.)

To make Stomach digestion [illegible]

comprehensible it is also necessary to go into the physiological anatomy of the Stomach: it has four Coats viz. Serous, Muscular, cellular, and mucous; of these the mucous and muscular are chiefly concerned in digestion. The muscular coat consists of three sets of fibres, longitudinal, circular and oblique. The mucous membrane, when the Stomach is empty, presents to the eye a number of rugae or folds, and when seen through the microscope presents a honeycombed appearance, owing to shallow polygonal depressions, whose diameter vary from $\frac{1}{100}$ to $\frac{1}{350}$ of an inch; these depressions are separated by elevated ridges: at the bottom of these depressions or alveoli minute orifices are visible which are orifices of perpendicularly arranged tubular glands imbedded

Side by side, in sets or bundles, and composing nearly the whole structure. Their walls consist of tubular inflections of the basement membrane of the mucous coat of the stomach. This membrane in the upper third of the tube is lined by an epithelium layer of cylindrical cells, continuous with that of the surface of the stomach: in the lower $\frac{2}{3}$ instead of a layer of cylindrical epithelium, the tube is filled by numerous ovate or polygonal nucleated cells; which latter are engaged in the secretion of the gastric juice, which mixes with the food in the stomach.

The cylindrical cells in the upper part of the tube, appear to take no direct share in the secretion of the gastric juice, but assist in forming a slightly alkaline mucous, which covers the stomach & the tubes.

As I said in the beginning, but little was known of the gastric juice until the experiments of Dr. Beaumont upon the Canadian boatman, St. Martin. He established, during the course of his experiments, the following important facts viz: 1st that the active agent in digestion is an acid fluid secreted by the walls of the stomach; 2d that this fluid is poured out by the glandular walls of the organ only during digestion, and under the stimulus of the food; and finally that it will exert its solvent action upon the food outside of the stomach as well as in it, at a temperature of 100 (Dalton).

The average quantity of gastric juice secreted daily by an adult is about 10 lbs; but the amount depends upon the nature of

and physical condition of the person, and the quality of the food. When the stomach is empty there is no gastric juice secreted, but immediately on the introduction of food, there is an increased flow of blood to the part, (which previously pale now reddens), the gastric glands begin secreting actively, and an acid fluid is thrown out in minute drops.

The gastric juice is made up principally of water, organic matter, and lactic acid. In regard to the latter there have been many disputes among physiologists of late, but it is now generally conceded by the most accurate experimenters, to be the above mentioned acid.

Gastric juice has the power of digesting

only one class of proximate principles viz. the Albuminoid or organic substances. The food on entering the Stomach is further subjected to the action of the gastric juice by a kind of churning movement of the Stomach, due to the action of the longitudinal and circular fibres of its muscular coat: this peristaltic action continuing until every portion of the bolus has been brought into contact with the gastric juice by which the albuminoid substances are converted into Albuminose: this change is effected by the catalytic action of the organic matter (ferments) of the gastric juice and to this it owes its digestive power.

The albuminose, together with the

indigested portion of the food, next passes through the pyloric orifice of the stomach into the small intestine, where the albuminous is absorbed, and the starchy matter converted into sugar by the action of the intestinal fluid, to undergo complete digestion.

This intestinal fluid is chiefly the secretion of Lieberkuhn's and Brunner's glands; it resembles very closely in physical characters the secretion of the mucous follicles of the mouth. The fluid's action is slower in the small intestine, than in stomach, owing to the imperfect development of the longitudinal and circular fibres of its muscular coats and to the [illegible] contents: this slowness of action is

necessary for complete digestion of the starchy matter.

The only remaining ingredient of the food that requires digestion is the oily matter, (which immediately after it passes the opening of the pancreatic duct (which opens into the small intestine) assumes an opaque, milky appearance, and becomes converted into oil globules (digested fat) by the organic matter (pancreatine) of the pancreatic juice. (This juice does not exert any chemical alteration on oily substances, but simply divides the particles minutely and causes them to form an emulsion so as to be absorbed.)

The only remaining fluid to be noticed is the bile, which is discharged into the small intestine through the biliary

duct. The part the bile takes in digestion is of little import. Its only function in digestion being to act upon the fatty acids, or promote the absorption of fatty emulsions.

The food now being completely digested is taken up by the absorbant glands and villi, which open upon the mucous membrane of the small intestine and is thus carried into the circulation; the indigestible and excrementitious matter passing off by the large intestine as faeces.

It would require too much [illegible] to [illegible] to [illegible] into the details of the various [illegible] [illegible] chemical composition etc.; [illegible] worthy of careful study to [illegible] Scientific experiment [illegible]

constituents of the various secretions, how they have discovered the excess of this constituent or the want of that, may render the secretion unexhibit to perform its intended function or office, how their Pathology Searches out and examines this abnormality and calls in known articles of the Materia Medica to right it. If we will thus examine the Practice of the present day we can but conclude that modern Medicine grounded on a true physiological basis is a Science

An

Inaugural Dissertation

On

ACUTE LARYNGITIS

Submitted to the

Examination of the

PROVOST, REGENTS (AND) FACULTY

Of the PHYSIC

University of Maryland

for the

DEGREE of DOCTOR of MEDICINE.

BY

Charles H. Cockey.

1867.

Acute Laryngitis.

Definition. Acute laryngitis consists of an erythematic inflammation of the larynx and epiglottis; sometimes extending to the tonsils, velum palati and posterior fauces.

This disease has always existed, but it is only recently that it has been distinguished and made an object of study. The first accurately recorded case is that of General Washington, drawn up by Drs. Craik and Dick. Among the distinguished medical men, who have been its victims, Dr. Watson mentions the names of Sir J. McIntosh, Dr. David Pitcairn and Sir George Tuthill. The late Dr. Francis, of New York, had a severe attack, but recovered. Prof. Brown of Woodstock Vt. lost his life some years since, by laryngitis, caused

by inhaling a corrosive acid through a broken pipette.

Anatomical Lesions. The mucous membrane of the larynx is found to be of a deep rose or violet red color; the tissue at the same time is softened or roughened and sometimes thickened. If there are ulcerations, they are generally small, few in number, very superficial, linear in shape and are almost always found upon the vocal chords. They are often so slight as to escape observation except upon very careful examination.

Clinical History. If the inflammation be slight it occasions simply hoarseness; a feeling of irritation in or near the larynx; a tickling cough, and, owing to a great extent to a coexisting inflammation of the fauces, some difficulty of swallowing. The difficulty of swallowing is sometimes absent, and when present, appears to result

mostly from the enlarged and fixed state of the epiglottis, so that when the patient attempts to swallow anything, a portion gets into the larynx, and causes a paroxysm of coughing. It is nothing more or less than the "bad, sore throat" so frequently seen in winter and early months of spring, and which passes off in the course of a few days.

If it be violent, the symptoms are much graver, and the patient's life is in imminent peril. His suffering is very great; for the swollen membrane nearly closes the narrow aperture through which the air is conveyed to the lungs. His respiration becomes seriously impeded, he breathes often, the inspiration is protracted and whizzing, and sounds as if it were made through a dry and narrow tube. The patient is either hoarse or has lost his voice. The cough is frequent and peculiarly harsh

husky, stridulous and abortive; and the expectoration is not abundant, and consists mostly of saliva, of a ropy character. The patient points to the larynx as the seat of his distress, and complains when it is pressed: says it feels constricted or as if there were a foreign body in it. Upon examining the throat, the velum, uvula, and fauces are found to be somewhat red and the tongue swollen. Dr. Good (V-1, P. 480) says "The fauces present a modena red color, and are considerably swollen and turgid; the swelling extending to the face, eyes &c." If the tongue be depressed, the epiglottis may be seen red and erect. As the disease advances, the distress increases: the countenance becomes pale or livid, anxious and ghastly, and the eyes protrude. The patient is restless and apprehensive, and gives notice that he wants air: requests that the windows may be opened, and, if not relieved, perishes with all the signs of deficient aeration of the blood, and of strangulation.

The disease runs a very rapid course. If, in a few days after its commencement, no improvement show itself, life does not last long. Sometimes death takes place on the first day of the attack; it rarely waits for the sixth.

Causes. The causes of this disease are exposure to the vicissitudes of weather and the inhalation of steam &c. Flint says "acute primary laryngitis is rare in the adult: in a secondary form, it may occur in small-pox from the occurrence of the eruption in this situation". Da. Costa, on the contrary, says "it is very rarely met with primarily, save in adults; but, occasionally we see it in children, and then, it is almost always caused by swallowing irritating substances and not as the results of exposure to cold and wet". Dr. Watson agrees with him. Gibert and Barthez, Billiard and J. F. Meigs say that it is sometimes caused in children by long continued crying.

Diagnosis. Laryngitis is distinguished from tonsillitis by the extreme and peculiar difficulty of breathing which attends it, and for which there is no visible sign: from pharyngitis, by the breathing being free in the last disease; no peculiar voice, nor cough; and the fauces appear dusky and injected. Croup resembles acute idiopathic laryngitis most nearly: in fact, it is acute laryngitis, accompanied with exudation of false membrane: but in croup there is no dysphagia, and the expectoration of false membrane serves as a diagnosis; although often there is none expectorated in the latter disease.

Prognosis. In the adult, it is a grave affection. In fatal cases, the course is rapid. Dr. Flint says it has been known to prove fatal in seven hours. In young subjects, it is less dangerous. [illegible] [illegible] asserts [illegible] [illegible] in duration. Dr. [illegible] says [illegible]

the inflammation takes place immediately around the glottis and causes a serous fluid to transude, the peril is increased ten-fold.

Treatment. If we look to the recorded cases of this disease, we will notice that the treatment under which one patient recovered, had no effect upon another. Dr. Francis, after being bled largely, recovered, whilst Genl. Washington, who was also depleted, died. Sir J. McN. Hayes was twice attacked. He was freely bled in the first attack, and although blood was copiously drawn in the second, he died.

Beck says, "among the remedies to be used, bloodletting and emetics necessarily take the lead. They act with great promptitude, and if properly administered, are capable of producing the best effects upon the system" (Mat. Med. P. 305 & 6). Also "when the symptoms are urgent, the first remedy to be

used, is bloodletting, and the orifice must be kept open till syncope is produced. Unless this is done, it can do little or no good. After this, a copious supply of leeches should be applied over the larynx". Armstrong says "bloodletting exercises, upon the whole, less influence over this, than over any other form of inflammation." (382). "In the early stage, when the strength is unbroken, and the symptoms are pain and constriction of larynx, free depletion is exceedingly useful. On the other hand, when organic changes have already taken place in the larynx, and the patient is beginning to suffer from effects of impeded respiration, and want of due arterialization of blood, strength failing, lips pale, countenance waxy and livid, much injury may be done by it." (Beck). Flint places more reliance upon bleeding in this, than in any other disease, except acute

cerebral meningitis. As to local bleeding, Dr. Farre says "it is better to take blood from the back (of) the neck; and when we desire to produce counter-irritation, it will be prudent to lay a blister upon the upper part of the sternum, rather than upon the neck, for fear of the effusion (of) serum extending beyond the skin" (Watson). (Bell says," one very important means was not used by his (Genl. Washington's) physicians — the application (of) leeches" and a few lines further on he says "if we are deprived (of) the use (of) leeches & the mucha, cups should be applied after V.S., so as to detract as much blood as can possibly be spared from the laryngeal region. The two means of bleeding may even be had recourse to, in very severe cases, almost conjointly, or in quick succession". (V-1-P.145).

Dr. Armstrong recommends the use of emetics as one of the most effectual means we possess, of arresting the progress. He used Antim. Tart. sometimes

combined with Ipecac, in repeated doses till free and frequent vomiting took place." No circumstance of my professional life ever gratified me more, than the great and sudden relief which the vomiting afforded. In reality, it removed all urgent symptoms at the time, and, being excited as soon as the slightest signs of structure of the larynx returned, at last completed the recovery." (Pract. Ill. in Typhus. 1st. Am. Ed. Page 336). Pract. says "emetics are our most valuable resources. From the rapidity with which the disease generally runs its course, such remedies are indicated as will operate with the greatest promptness, and among these, venesection and emetics take the lead. Bleeding to syncope, is, in most cases, the first remedy to be applied. After this an emetic of Tart. Antimonii and Ipecac is the article best calculated to afford relief, and it does so probably, by the copious secretions which it produces from the

fauces, as well as by its general relaxing effects upon the system. The importance of this remedy has not, it appears to me, been sufficiently insisted upon, by those who have treated of this formidable disease." (Page 78). Some object to bleeding in this disease fearing the patient may die of asthenia; but I do not think there is any such danger. Occurrence of death is almost always caused by apnoea. It is true, death may ensue from asthenia, but not unless the bleeding is carried too far, or be not had recourse to at the proper time, or in other words, be delayed too long. Dr. Watson thus speaks of emetics; "I would not use emetics, for fear the contents of the stomach would enter the larynx (which is unprotected by the stiff and swollen epiglottis), and cause hurtful distressing and even perilous attacks of suffocating cough." (Pract. Page 54[illegible]). This may be a

good objection, but is it true? Is there any such danger in using emetics? I doubt it.

The bowels should be frequently moved by cathartics of the saline class. Veratrum and the other sedatives are indicated. Mercury may be given so as to bring the system rapidly under its influence. Warm fomentations should be applied to the throat, and the room should be charged with steam, which may also be inhaled from a proper vessel.

Prof. Bennet, of Edinburgh, is a great advocate of Dr. H. Green's plan of applying Nitrate of silver to the whole larynx by means of a probang. Prof. B. says "the application of the nitrate is a most valuable addition to our other means of cure" Dr. Green uses a solution of the strength of ℈i-℥j to Aqua ℥j. Trachectomy

should be performed as soon as signs of imperfect aeration of blood appear, and not be shut off till the face becomes purple and extremities are cold: as is too often done.

In a weak person, I should not deplete much and take good care to stimulate and keep the strength up, so that the patient may not die from asthenia.

In children, it requires less rigorous measures. Cases often recur which do well with palliative measures. Emetics are of more use than in the adult: stimulating baths, and liniments to the throat and neck, constitute the general plan of treatment.

AN

Inaugural Dissertation

ON

Diphtheria

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

R. Constant Wells

of

Maryland

Session of LIX LX 1866 7

Diphtheria

During the past few years no disease has attracted more attention or been of more absorbing interest to the medical profession, than the one under consideration. That it is not new, a cursory view of some of the more ancient medical works will clearly demonstrate. Although the term Diphtheritis or Diphtheria be a term of recent introduction into medical literature, the disease which it designates is by no means of modern date.

The name, as we now have it, was given by M. Bretonneau of Tours. To this distinguished Frenchman is due the credit of having first satisfactorily shown the nature of this disease.

Diphtheria is derived from the Greek "διφθέρα", which signifies a skin or membrance. The ingenuity of modern nomenclature, the discoveries, and, if I may use the term, the refinements of modern pathology, may lead us to forget, that the disease was amply described by English and continental authors prior to the present century.

If we go back as far as the year 313 we find mention of the disease as prevailing among the Romans. They prayed, they offered sacrifices to their deities to preserve them from this fatal malady. Huxham in 1755 Quarin of Vienna and Fothergill in 1781 have left us descriptions of Diphtheria. Cullen, Pinel and other medical writers have given it attention

in their valuable works. More modern medical authors devote little space to the consideration of this subject. Watson, Woods and sterling writers of the same stamp, who have written on the Practice of Medicine, scarcely notice the disease. To our eminent Professor, Chesson, of the Theory and Practice of Medicine do I owe what knowledge I possess of the nature cause & treatment of Diphtheria. In the practice of my father I have had an opportunity of seeing very many cases of this disease.

Diphtheria usually begins with redness of the fauces and some uneasiness, such as is experienced in ordinary sore throat. The physician is rarely called

upon in the first stage and not until the expudation has made its appearance. The expudation known out consists of small, circumscribed patches ~~of~~ x whitish, yellowish white, or ash colored. This is seen in portions of the fauces, scalled over its whole surface It is seated on the mucous membrane, and when the patches of diphtheritic expudation have disappeared, it seems to have lost none of its substance. The consistence of the false membrance is tough and dense though in some cases it is translucent. The tonsils are much inflamed & swollen and may be covered by the expudation. The ranine and submaxillary glands are often involved and are much enlarged) and

under to the touch Examined under the microscope, says an Learned Professor of Practice, the expectoration is found to consist of interwoven tenants, small condensed granules, epithelial cells in different stages, of pus and blood corpuscles, In the incipiency of the malady the patient complains of severe pain in the back and extremities; severe headache is not an unfrequent accompaniment.

The face is puffed and suffused and the eyes glistening and watery. The pulse is hurried such as we have in the continued form of fevers and the tongue is coated with a creamy white fur. If the expectoration be detached the mucous membrane beneath takes on

increased redness and is rapidly reformed. The difficulty in deglutition is great even in the mildest cases; but in the more severe, fluids, taken into the mouth, are regurgitated through the nostrils. When the disease is not severe, the exudation is less and the patches more circumscribed and the other symptoms are comparatively lenient. There is often a flow of yellowish puri-form matter from the nostrils, which indicates the advent of the disease in the nasal passage. Where the disease assumes its greatest severity, the deposition of pseudo-membranous exudation has a tendency to travel towards the larynx, trachea and even the bronchia: the respiration is thus impeded and the

life of the patient placed in great jeopardy. This may take place at any time during the disease, even when everything promises a speedy recovery. Where the larynx has been reached, all the symptoms of laryngitis are developed. Dyspnoea, stridulous breathing, hoarse cough, all the symptoms of pseudomembranous croup are present and the difficulty in swallowing is alarmingly increased. If the disease go on to a fatal termination the breathing becomes more laborious and the voice nearly extinct. The countenance becomes livid, the lips purple and paroxysms of suffocation come on: the virus of the disease now strikes at

the centres of vitality and death puts an end to the agony of the brave sufferer. The exudation, though it disappears, is no sure sign of the abatement of the disease. For often it is as rapidly formed as it is thrown off. I have seen the diphtheritic patches clear off entirely, only to be again reformed within a few hours. The duration of the disease is variable, lasting sometimes only a week or two; though in one instance I have known it to continue for three months.

Exposure to cold & moisture is undoubtedly one of the most frequent causes of the complaint. At times it has prevailed epidemically in our County

and even at the present writing there are some scattering cases. Many uphold the contagiousness of the disease, but I am disposed to doubt it from actual observation. Even several persons in the same family have been attacked, but may they not have been exposed to the same cause? I have seen several instances in which the mother nursing her infant had the disease in an aggravated form and yet the babe escaped.

This surely is conclusive proof of its non-contagious nature. The disease usually attacks children but is rare in old age. If the physician has seen one well marked case of Diphtheria the diagnosis is not difficult. The only disease with which it might be

compounded is thrush, the sore throat of Scarlatina, angina malignant or gangrenous sore-throat and pseudo-membranous croup. From all these it is readily distinguishable by the exudation commencing in the fauces. The false membrane or the yellowish concretion is the diagnostic mark of the disease. The exudation is scattered in patches over the fauces, pharynx and tonsils.

If it were not for the eruption in Scarlatina, the distinction between the two diseases would certainly be puzzling. We have in Scarlet fever nearly all the symptoms present in Diphtheria, with the exception of the nausea & vomiting which is found in the former complaint. This has lead many to consider

the diseases identical. Yet the occurence of scarlatina only once in the same patient and the frequent recurrence of Septithesia would show a broad line of distinction. Some older writers have designated the disease as scarlatina, "sine eruptione". Heberden remarks on this subject: "it seems highly probable that they are both name of the same distemper with some little variety in a few of the symptoms; and this opinion is confirmed by our finding that they are both epidemical at the same time. Even in the same family when a number of children have been ill together or immediately after one another, some have had the distinguishing symptoms of scarlet fever and others of

Diphtheria. This last remark my father has seen verified in at least one instance: Cullen believes them to be specifically different; but he admits their affinity and that there may be Scarlatina anginosa like to Diphtheria "sine eruptione" It would be useless to enter into a discussion on this point: Much could be said on both sides and yet we cannot decide positively in the distinction. We leave the subject therefore for more able hands and its a subject yet "sub judice"

As in Scarlatina so in this disease no prognosis can be made out: Even the mildest cases

everything augering a favorable
termination, have suddenly changed,
and death has been the result: Hence
the care necessary in pronouncing a happy
issue. As in Variolation & in
Diphtheria the sequelæ are unpleasant.
Paralysis very often takes place, sometimes
painless sometimes entire. I know of
two cases of this kind. One was partial
paralysis existing only in one limb.
The other was a general paralysis.
In the first case the loss of power lasted
only a short time and disappeared
with severe pain. Whilst in the other
the unpleasant sequelæ existed a long
period. All finally yielded to treatment,
and the patient recovered the perfect use.

of her limbs. In a patient who fell under my care for the treatment of Bronchitis I discovered that one of the tonsils had entirely disappeared: she informed me that she had lost it in a very severe attack of Diphtheria. In another case the palate was wholly disorganized. During the session of 1865 & 6 Prof R. McSherry had under treatment in the wards of the University Hospital a man who had recovered from a protracted attack of the disease. All fluids taken into the mouth were regurgitation through the nostrils. Paralysis of the muscles of deglutition was the cause. Our Professor was successful in his treatment and the patient was

dignified cured. Extreme care during convalescence should therefore be strictly enjoined as many of these unpleasant consequences could be abviated.

In no disease has a greater variety of treatment been substituted. When the disease raged with such fatal violence a few years since, many remedies were tried but so unsuccessfully, that they were immediately rejected for others of more imaginary value. It is the well informed physician should act as a scientist. The treatment in many cases is according to the condition of the patient. Scarcely a medical journal for several years past, can be opened without finding some new

remedy lauded as a specific. The Tinct. Ferri Chlorid has been much used and with ~~many~~ much success. But from no remedy have I derived more satisfaction than the Chlorate of Potash given both internally and as a gargle. I have seen this remedy used in hundreds of cases and with almost uniform success. Many premise the treatment by an emetic, generally of Ipecacuanha. It would be a useless way an unprofitable task to enumerate of the long list of medicines employed in the treatment of the disease. The apothegm of our Pit of Physic is certainly a true one and will save the young practitioner many

an error. "Treat symptoms as you find them" This is a maxim which will never lead you astray. In some of the older works the usual antiphlogistic regimen is advised: but surely they could not have understood the nature of Diphtheria, which is now considered an asthenic disease. We one thinks now of bleeding in this disease as it would be not only prejudicial if not actually fatal. In my opinion it is a constitutional disease causing a deterioration of the system a poisoning of the blood and fluids and depression of the nervous centres. The treatment symptoms are but secondary and symptomatic only & the severeness of the general disease & the disease

is of an asthenic or typhoid nature stimulants must be employed in some cases at the very start. When we find the diphtheritic patches of a dark color it is almost a sure sign of the malignancy of the case and our measures should be taken promptly.

In ordinary cases the Tincture Iron of Iron and Chlorate of Potash are the remedies recommended by Prof McSherry and with them you can promise yourself almost certain success.

Topical applications are of no little importance even in the mildest cases Here again we have an almost infinity of medicines recommended and no little discrimination is necessary in selecting the

proper one. Several caustic applications were much in vogue a few years since, but unfortunately for the patient, they have been abandoned. It is a question if they ever did good, if not positive harm... and the reason is obvious the tissues involved are already in a high state of irritation... and would not the application of caustics increase this condition.

I know of nothing better than the Chloride of Potassa as a local application to the exudation. I have seen it used in hundreds of cases and have every reason to believe that it did good. Mild astringent gargles are of decided advantage. The following two

been highly recommended. The Bicarb of Soda, Sugar and Honey. Gargling the throat occasionally with tepid milk, the inhalation of steam are all mild and efficient remedies.

When the pseudo-membranous exudation assumes a gangrenous appearance nothing is certainly more useful than the nitrate of silver. The sulphates of Zinc and Copper have also been used with essential advantage in the same case. The chlorides of Lime and Soda have been instrumental in the treatment of Diphtheria and the results warrant a repetition of the practice.

Creasote has employed by many Physicians, as I have said, also to be treated and

in no disease do they need so much attention as in this. It would seem proper to say something of the operation of tracheotomy in this disease when suffocation is threatened by the invasion of the trachea by the false membranes, as I have no experience in such cases and what I should write could only be gathered from books, I dismiss the subject.

AN

Inaugural Dissertation

ON

The Propagation & Extension of Disease

SUBMITTED TO THE EXAMINATION

of the

Provost, Regents and Faculty

of

PHYSIC,

of the

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

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by

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The Propagation & Extension of Disease.

Perhaps no subject of equal interest and importance, is so wrapt in obscurity as the philosophy of the Propagation and Extension of disease. And though, much light has been shed upon this branch of our science by the researches and experiments of the learned, of [illegible] past and present our knowledge is [illegible] comparatively in its infancy; and there yet remains much, which though obscure and un- thou-

able, in the present state of science, will be understood and appreciated by the philosophers of the future; aided by our experience, and their own more expanded state of knowledge.

The subject which we have selected is not an abstract or impracticable one, but has most important bearing upon medicine, both as an art, and a science.

Did we understand the modus operandi of the propagation of disease, we might, most certainly [illegible] this propensity; and thus prevent its extension, or failing in this, treat it on such enlightened principles, as would place us on a more equal footing with [illegible] antagonist, and render us oftener successful in our contest with

the common enemy of our science death.

It is probably, upon the principle of neutralization that many of the medicines and more especially, those of the class of alteratives act. Thus, we have an example, in the antagonism, which exists between cinchonism of the system, and the poisonous influence of malarial miasm. Quinia is one of the few medicines which is entitled to the name of specific, and is perhaps, one of the best examples of the class I have just referred to; namely medicines, which are capable of neutralizing the poison of disease. Whether this, in the particular case of quinia used in intermittent fever, is accomplished by a direct man-

tralization of the poisonous matter itself, or by such an effect on the system, as to prevent the development of the disease, is as yet undetermined. It is however a well substantiated fact, that a person under the full influence of quinia, may be exposed to the poison of malaria, without being effected. And, though the system be under the influence of malaria, it is eradicated, or at least superseded for the time, by the peculiar influence which quinia possesses over the economy.

How the almost specific effects of the remedy in intermittent fever, was accidentally discovered by the ignorant natives of South America, who knew as little of the pathology of intermittent fever, or the nature

of malarial miasm, as being void of the chemical constituents of the bark, they propose as byplay.

If the mode of propagation of this peculiar disease, and the essential character of the poison producing it, had been understood; perhaps, so this similar, and equally efficient remedy, arrived by scientific deduction, have been discovered. And intermittent fever, which was in former times so intractable, and so much dreaded by the physicians, as well as by its unfortunate victims, might long ago, have been brought within the control of medicine, and rendered as comparatively harmless, as it is at the present day, considered. Still the results of accomplishing ... waiting for establishment ...

fickle dame fortune chose to place in her hand the sovereign remedy. And this reasoning applies equally well to many other diseases. Did we understand the true character, and cause of the "ills flesh is heir to", we might treat them more rationally, and with greater success.

"But medicine is yet an incomplete science, and there remains much to be understood, and revealed, before she may rank with some of her more fortunate sisters.

When the nature of disease and the mode of propagation is understood, then will she stand in the front rank; and the physician, will not give such, such remedies, because someone else has declared them efficacious."

because by legitimate reasoning, and philosophical deduction, he has proved them to be such.

The causes of disease, are divided primarily into two classes — the predisposing; and exciting. The former, comprises all such, as "to influence the functions or structures of the body, so to render that body unusually susceptible to the influence of particular exciting causes". Such as "debilitating influences, previous and present disease, hereditary constitution, temperament, age, sex, occupation", &c.

The exciting causes, constitute "such circumstances and agents, as seem to be operative in producing disease in the body, more [illegible]

when in a state of predisposition." And these again are subdivided into cognizable, and non cognizable agents. "The former class comprehends physical and mental influences, of whose existence we take cognizance, independently of their operation in producing disease. Such as mechanical and chemical impressions, vegetable, bodily and mental exertion, expiration, suppressed or defective evacuation, defective cleanliness, changes of temperature," &c.

The latter or non cognizable agents, are the endemic, epidemic and infectious principles. It is upon this last class that I purpose more particularly to dwell. The non cognizable agents as their name

morbific are such exciting causes of disease as make themselves apparent, only by their effects on the economy, and they are also known as "Zymotic" poisons. (Zoμη, a ferment,) from their supposed property of undergoing fermentation within the system.

We shall now consider the class of noncognizable or specific agents, under the three heads of Miasmatic, Epidemic & Contagious poisons.

Malaria or Marsh miasm is a peculiar poisonous principle of local origin. It has never been isolated, nor has its native nature, as yet been recognized. It abounds in warm climates, where there is present moisture and vegetable matter undergoing decompo-

sition, and upon this fact was founded the idea, at one time generally received by the profession, that heat, moisture and vegetable decomposition were necessary for the production of malaria. This deduction however is not correct. Although there is a close connection between this combination of circumstances and the evolution of miasm, it is not absolutely necessary for its production, as malaria is known to have prevailed where there was neither moisture nor vegetable decomposition, but simply intense heat.

One of the most striking characteristics of this poison is its love of water. Where water covers or abounds, there miasm is still more peculiar

is the manner in which it is influenced by winds. So that persons living to the windward of a miasmatic swamp are seldom apt to suffer from malarial fever, while those on the leeward suffer continually.

In what manner miasmata operate in producing disease, cannot be known, until we know their nature. The probability is, that they enter the circulation by absorption, and that their chief means of entrance is the air cells of the lungs. The most striking and characteristic morbid effects of miasmata, are intermittent and remittent bilious fever. But they are believed also, to be capable of producing diarrhœa, dysentery, various hepatic and gas-

tive derangements and neuralgia. And when an active disease is generated in the system by their presence, still the economy is morbidly influenced, so that persons living in a malarious district may often be recognized by their unhealthy sallow appearance, or looking bilious, as it is termed in common parlance.

The system becomes however, in time, habituated to the presence of miasmata, and its morbid influence is no longer exerted upon it; i.e. in very many cases.

Epidemic poisons.

The true nature of epidemic poisons is perhaps even more exalted in obscurity than that of the malarial miasm.

The theories [illegible] are un-

merous, and thus far are only theories. Thus they have been ascribed to some mysterious influence of the heavenly bodies, to earthquakes, and volcanoes emitting noxious matters into the air, to altered electrical conditions of the atmosphere, and to the rapid propagation and migration of atmospheric animalcules. Others have supposed that the poison might be of vegetable origin. But as none of these ingenious theories have as yet been demonstrated to be true; we must still remain in darkness as to its specific nature.

The action of epidemic poisons is peculiar and interesting. They frequently give rise to diseases quite independently of any other known cause, as in the case of influenza or cholera.

But they still more frequently exhibit themselves, by giving increased energy to other causes. Thus small-pox, scarlatina and other contagious eruptive affections sometimes become epidemic. At other times, it seems not to produce any one disease, but rather to give a special type to existing diseases. As during the prevalence of cholera, bowel of the bowels is very apt to be superadded to other affections; and when influenza is the reigning disease, all other complaints become complicated with catarrhal symptoms.

The extent of epidemic influence, and its rate of progress is exceedingly variable, sometimes confined within a comparatively small space

at times spreading over whole continents; now extending itself slowly, creeping as it were, from place to place, and now, with the rapidity of lightning spreading over a vast extent of the earth's surface. Again it displays most inaccountable eccentricities in the extent of its ravages and the severity of its visit. In one region it may number its victims by thousands, while perhaps their nearest neighbors scarce feel the scathing rod.

Opposing currents of wind do not obstruct it's course. And this fact has been advanced as one of those favorable to the annihilation theory. The duration of an epidemic is always uncertain, it may disappear suddenly after

a short prevalence or may continue with little intermission for years. Again it may appear only at particular seasons, and this may be repeated with each succeeding year. The other remarkable circumstances which have been frequently observed in connection with epidemic fevers, is their tendency to alternate in relation. Sometimes two epidemics will alternate with short periods of exemption, at others the first will be followed by a second, this second by a third and so on.

Having now briefly reviewed the characteristics of epidemic fevers, we must pass on to their pathogenesis, with the limitations

acknowledgment before admitted, that in regard to their true nature, though we consider them as among the most important of the causes of disease, we are as yet in profound darkness.

Contagion.

Contagious diseases are all such as may be propagated by poisons generated in the human system.

There are two kinds of contagion, the volatile and the fixed. And for this we must look [illegible]. Contagion the poison of syphilis is to be of a volatile nature. If such were the case, the world ere this would have been depopulated.

The term active is sometimes used to designate

the volatile contagious poisons.

The fixed poisons are communicated either by simple contact, or by application to a wound, or abraded surface. Those of a volatile nature act through the medium of the atmosphere, probably for the most part by inhalation into the lungs. Some however act on the surface, and their effects are merely local.

Some diseases may be said to belong to both of these classes. Thus small-pox may be communicated either by inoculation, or by exposure to its volatile contagious principle. The contagious matter has no sensible properties by which its poisonous character might be indicated.

There is a great differ-
ence in the contagious pow-
er of the different exhala-
tions. In some it is feeble,
and attacks few of those
exposed, in others very ac-
tive, allowing few to escape.

Contagion does not
generally act at a great
distance from its source,
though there is considerable
difference also, in this re-
spect. Thus we note the
difference between typhus
fever and small-pox. A
few feet will suffice to pre-
vent the propagation of
typhus; while such is far
from being the case with
the latter disease.

The effluvia are capa-
ble in some instances of
attaching themselves to clo-

thing, merchandise &c, and may thus be conveyed to great distances. The matter of contagion is said to be rendered inert by a temperature of 120°F. Intense cold is thought also to impair the activity of contagious matter. Certain chemical substances also have a similar effect, especially chlorine.

The time at which a contagious principle begins to show its effects varies from two or three days to as many weeks after exposure. This interval is known as the period of incubation.

Contagious diseases have many characteristics peculiar to themselves. Thus they run

a certain course, have distinct stages, and terminate commonly in a given number of days.

An other peculiarity is, that one attack generally secures the system against a second.

The nature and mode of action of the contagious poisons are points of great interest, which remain yet to be settled.

There are two circumstances however which serve to distinguish them from other morbific agents. These we have already spoken of. They are firstly the power of reproduction in the human; and secondly the immunity which one attack generally gives against a second. The theory [illegible]

generally received in regard to the poisons is that the poison acts as a ferment in the blood, and thus reproduces itself.

Future exemption has been explained upon the purely hypothetical ground that there exist within the system peculiar matters which through the fermentation excited by the contagious cause are themselves converted into contagion, and eliminated so that in future though the poison be absorbed it will find no material to act upon, and will therefore be harmless.

With this brief consideration of the contagious poisons I conclude

my thesis. The subject which I have selected is so extensive that I have given but an outline sketch of it; and have scarcely dwelt even upon the most important points. Therefore I beg the reader, (should fortune so favour me as to make such an one) that he will overlook my omission as well as commission; and hope for something better in the future.

Respectfully submitted

by

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